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ENVIRESPONSE, INC.

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ANALYSIS OF PRIORITY POLLUTANT VOLATILE ORGANICS, METALS AND PCB'S IN SOILS

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CHICAGO, ILLINOIS
Project No. 36606190599

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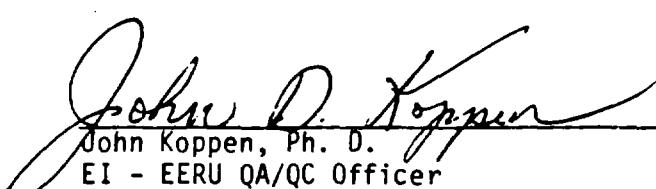
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INTRODUCTION

On October 7, 1985, five soil samples were received by the Mobile Laboratory from the U.S. Scrap Landfill. Several of the samples contained stones and wood particles. Analysis for priority pollutant metals, volatiles and PCBs was requested.

PROCEDURES

Volatile Organics Analysis

A ten gram soil sample was weighed into a 30 ml crimp top bottle and fixed with 10 ml methanol. Originally, a 100 ul aliquot of this methanol was injected into 10 ml Purity Brand bottled water for purge and trap-flame ionization-gas chromatographic analysis. However, after the first sample was analyzed, it became apparent that high concentrations of late eluting compounds were saturating the detector. It was a full forty eight hours before another sample could be analyzed. The detection limit was raised to 2 ug/g soil by injecting 5 ul of the extract into a 10 ml portion of water. The detector continued to be saturated but not to the extent as for the first sample. The results of this analysis are presented in Table 1.

A 50 ng/ml standard of Supelco Purgeable A and B was analyzed daily to assure that the detector was still operating at the same sensitivity as for the calibration range. Values of +20% were considered acceptable.

Each standard and sample was dosed with a surrogate standard, bromochloromethane, to assure the efficiency of the purge unit and to determine any matrix interferences.

PCBs

Soil samples were dried overnight at 120°C in an oven. A ten gram portion of each soil was weighed into a 30 ml crimp top bottle. Twenty milliliters of hexane were added to the bottles and they were shaker extracted for 30 minutes. A 500 ul aliquot from each sample was eluted through a silica sep-pak with 2-2.25 portions of hexane. The clean extracts were analyzed by electron capture detector gas-chromatography.

Four of the five samples contained Aroclor 1254 and Aroclor 1260. The quantification of the Aroclor 1260 was based on comparing the sum of the peak heights of three peaks unique to 1260 in a sample to the sum of the same three peaks in a standard. Quantification of 1254 was performed by calculating the ratio of the sum of two peaks unique to 1254 to a peak common to 1254 and 1260 in a standard of 1254. This ratio was multiplied by the peak height of the common peak in a sample containing 1254 and 1260 to determine the 1254 contribution to that peak. The sum of the adjusted 1254 peak height in the common peak plus the peak height of the two peaks

unique to 1254 were compared to the sum of the same three peak heights in a standard of 1254 to determine the concentration of 1254.

A mixture of Aroclor 1254 and Aroclor 1260 was prepared to test this calculation. The results are summarized below.

Aroclor	True Concentration	Recovered Conc.	% RE
TEST MIXTURE = 250 PPB 1254 : 250 PPB 1260			
1254	250	249.2	.31
1260	250	286.5	14.6
TEST MIXTURE = 333 PPB 1260 : 167 PPB 1254			
1254	167	192.7	15.4
1260	333	387.8	16.5

A five point calibration of Aroclor 1260 was analyzed to determine the detector linearity. A 1254 standard was also analyzed for use in quantification of the 1254 fraction in the samples. An Aroclor 1260 standard was analyzed daily to ensure that the detector was within $\pm 20\%$ of the calibration values.

Metals

The soil samples were mixed thoroughly. A portion of each sample was placed in small plastic weighing dishes, partially covered, and placed into a fume hood to dry for 8-10 hrs. The samples were ground to as fine a powder as possible with the bottom of a glass vial. A 0.5 gram sample weighed to the nearest 0.01 grams, was placed in a 70 ml teflon lined digestion bomb. Five milliliters of redistilled concentrated nitric acid was added to each digestion bomb. The sealed bombs were heated for one hour at 60°C and then for 12 hrs at 120°C in an oven. The bombs were allowed to cool to room temperature. The contents of the digestion bomb were quantitatively transferred to 25 ml volumetric flasks and diluted to volume with 2% nitric acid. A system blank was obtained by placing 5 ml of redistilled nitric acid into a clean digestion bomb. The acid was treated as a sample.

The sample solutions were analyzed for 13 priority pollutant metals and interfering metals using a Spectro-Scan multi-channel DC Plasma emission spectrometer.

The concentration of the metal in micro grams per gram of sample (ppm) is calculated as follows:

$$\frac{(\text{Instrument Readout, Conc. ug/ml})}{\text{Weight of sample, g}} \times 25 \text{ ml} = \frac{\text{ug of Metal}}{\text{g of Sample}}$$

The instrument manufacturer defines the instrument detection limit as three times the standard deviation of the blank. These detection limits and linear ranges were determined under ideal conditions as shown below.

Metal	Symbol	Wavelength (nm)	Linear Dynamic Range (ug/ml)	Detection Limit (ug/ml)
Antimony	Sb	206.833	1 - 100	0.10
Arsenic	As	193.696	0.8 - 100	0.08
Beryllium	Be	313.042	0.003 - 60	0.0003
Cadmium	Cd	226.502	0.05 - 1000	0.005
Chromium	Cr	267.716	0.1 - 1000	0.01
Copper	Cu	324.754	0.02 - 10	0.002
Lead	Pb	283.306	0.2 - 600	0.02
Mercury	Hg	253.652	0.2 - 1000	0.02
Nickel	Ni	231.604	0.5 - 100	0.05
Selenium	Se	196.026	1 - 1000	0.1
Silver	Ag	328.068	0.04 - 60	0.004
Thallium	Tl	276.787	0.3 - 1000	0.03
Zinc	Zn	202.548	0.06 - 600	0.006

The operational detection limit depends on the performance of the instrument during actual analysis. The operational detection limit is equal to three times the standard deviation of the blank determined during analysis. The operational linear range is determined by analyzing solution standards and using the instrument standardization program. Check standards were analyzed during the analysis of samples.

The results of the metals analysis are presented in Table 3.

Table 1. Results of Volatile Organics Analysis

Sample ID	Parameter	Concentration ug/g	Detection Limit ug/g
STA-01	1,1-dichloroethane	.60	.11
	1,1,1-trichloroethane	.82	.11
	1,2-dichloropropane	.21	.11
	Bromoform	1.6	.11
	1,1,2,2-tetrachloroethane and/or tetrachloroethene	1.4	.11
	Toluene	7.0	.11
	Chlorobenzene	1.8	.11
	Ethyl benzene	5.5	.11
STA-02	None detected	--	2.0
STA-02	Methylene chloride	3.8	.20
	1,1,1-trichloroethane	.17	.20
	Toluene	.72	.20
	Ethyl benzene	.47	.20
STA-03	Bromodichloromethane	9.1	2.0
	Bromoform	11.	2.0
	Toluene	3.9	2.0
STA-04	1,1,1-trichloroethane	5.9	2.0
	Carbon tetrachloride	3.0	2.0
	Bromodichloromethane	3.5	2.0
	Trichloroethylene	4.0	2.0
	Benzene	6.5	2.0
	Toluene	78.	2.0
	Ethyl benzene	68.	2.0
STA-05	None detected	--	2.0
STA-05 Dup.	None detected	--	2.0

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Table 2. Results of PCB Analysis

Sample No.	Aroclor	Concentration (ug/g)
STA-01	1254 1260	1414 890
STA-02	1254 1260	2274 1374
STA-03	--	None detected
STA-04	1254 1260	134 194
STA-05 (Not Homogenized)	1254 1260	42.2 27.8
STA-05 Dup. (Not Homogenized)	1254 1260	None detected 18.6
STA-05 (Homogenized)	1254 1260	21.9 10.1
STA-05 Dup. (Homogenized)	1254 1260	24.2 12.6

Table 3. Results of Priority Pollutant Metal Analysis
Concentration in soil reported as ug/g (ppm)

Sample #	Hg	As	Se	Zn	Sb	Cd	Mt	Cr	Cu	Pb	Be	Ag	Tl
S-1	ND	ND	ND	31.8	ND	ND	ND	184	ND	46.6	ND	<3	97.0
S-2	ND	ND	ND	341	ND	ND	ND	107	29.4	145	ND	<3	59.9
S-2 dup	ND	ND	ND	240	ND	ND	ND	117	18.9	101	ND	ND	32.9
S-3	ND	ND	ND	317	ND	ND	ND	16.6	136	750	217	312	ND
S-4	ND	ND	ND	323	<75	ND	ND	11.1	113	62.0	63.9	ND	57.5
S-5	ND	ND	ND	37.1	725	125	20.7	67.6	114	83.3	151	ND	39.4
System												<3	82.9
Blank	0.0	0.0	0.0	0.0	0.0	0.210	0.349	0.0	0.0	.06	.025	.018	.368
Sample													
D.L.	25	45	15	1.0	75	3.0	2.5	7.5	1.5	3.0	.45	3.0	3.0
Sample													
Linear	250	450	150	10	750	30	25	75	15	30	4.5	30	30
Range	12,500	5,000	5,000	5,000	5,000	1,000	5,000	10,000	500	10,000	50	1,000	5,000

ND indicates not detected

QA/QC PROCEDURES

Volatile Organic Analysis

A 100 μl portion of clean Burdick and Jackson methanol was injected into 10 ml of Purity Brank bottled water and analyzed by purge and trap-flame ionization-gas chromatography to determine any interferences. Results of this analysis are tabulated below.

Parameter	Concentration (ng/l)
Methylene chloride	3.3
1,1-dichloroethane	.37
1,1,1-trichloroethane	.95
Carbon tetrachloride	4.6
Bromodichloromethane	22.
Trichloroethylene	1.7
Benzene	2.1
Tetrachloroethylene and/or tetrachloroethane	1.1
Toluene	2.4
Ethyl benzene	.34

These values were very high for a methanol blank. Several other new bottles of methanol (Burdick and Jackson, Fischer) were checked. None proved to be any better than the Burdick and Jackson that is represented above. Subsequently, the Burdick & Jackson was used to extract the samples, and the background was subtracted.

As mentioned previously, each standard and sample was dosed with a surrogate standard to establish purging efficiency and matrix interferences. Results of these spikes are presented in QA/QC Table 1.

One sample, STA-05, was analyzed in duplicate to determine percent relative standard deviation. An EMSL performance evaluation sample was analyzed to assure the accuracy of the Purgeable A and B daily standard. This sample was analyzed on the first and last days of analysis.

PCBs

As mentioned previously, a five point calibration range was analyzed and each point was compared to the center standard (500 ppb (ng/ml) to determine the percent relative error. Values $\pm 20\%$ were considered acceptable. All points were within these limits. The detection limit of 50 ng/ml was determined experimentally. Results are presented in QA/QC Table 4.

An EMSL Performance Evaluation Sample was analyzed to determine the quality of the calibration range and to assure extraction efficiency. Results of this analysis are summarized in QA/QC Table 5.

One sample was analyzed twice to provide precision data and to determine the uniformity of the sample matrix. The results of these analyses showed a lack of homogeneity. The soil sample was then mixed thoroughly and re-extracted and analyzed. These results are presented in QA/QC Table 6.

Sample STA-02 was spiked with 73.5 ppb Aroclor 1260 to determine any matrix interferences. Apparently this spiking level was either too low or again, lack of the sample uniformity interfered with its detection. Results are presented in QA/QC Table 7.

Metals Analysis

The analyzed metal concentration was corrected for the equivalent concentration due to the blank and interfering metals. Duplicate samples, spikes and EMSL Performance Evaluation samples were analyzed. The spikes are of two types: soil was spiked in the digestion bomb, and the sample solution was spiked after digestion.

Sample S-2 was analyzed in duplicate, as shown in QA/QC Table 8. An instrument variation of $\pm 15\text{-}20\%$ was not uncommon between samples or from day to day. The samples were not homogeneous. This was shown by the large differences in the concentrations of the interfering elements, QA/QC Table 9.

The recovery of a spike was effected by the relative concentration of the spike and the concentration in the original sample. The spike concentration in sample S-5, QA/QC Table 10, was low. The spike recoveries in sample S-4, Table 4, were improved.

The QA/QC Table 11 EMSL Sample results were within the 95% confidence limit except for mercury, selenium and beryllium. The mercury and selenium values were near the detection limit where the instrument errors were high. Results for this analysis are presented in QA/QC Table 12.

QA/QC Table 1. Results of Surrogate Standard Recoveries
for Volatile Organics Analysis

Standard ID	Date	% Recovery
50 ppb A&B	10/8/85	104
50 ppb A&B	10/10/85	102
50 ppb A&B	10/9/85	99.
50 ppb A&B	10/11/85	100.

Sample ID	Date	% Recovery
Methanol Blank	10/8/85	107.
EMSL PES	10/8/85	91.
STA-01	10/8/85	96.
STA-02	10/10/85	90.
STA-03	10/11/85	97.
STA02	10/9/85	107.
EMSL PES	10/11/85	94.
STA-04	10/11/85	98.
STA-05	10/11/85	81.
STA-05 Dup.	10/11/85	103.

QA/QC Table 2. Results of Duplicate Analysis for Volatile Organics

Sample No.	Run 1	Run 2	% RSD
STA-05	None detected	None detected	0

QA/QC Table 3. Results of EMSL Performance Evaluation Sample for Volatile Organics

WP Conc. 1

Date	Parameter	True Concentration (ng/ml)	Recovered Conc. (ng/ml)	% RE
10/8/85	Chloroform	12.0	11.1	7.5
	1,2-dichloroethane	2.0	2.29	14.5
	1,1,1-trichloroethane	1.4	1.66	18.6
	Carbon tetrachloride	2.6	2.49	4.2
	Bromodichloromethane	2.0	1.50	25.0
	Trichloroethylene	2.9	2.8	3.4
	Bromoform	2.9	2.46	15.2
10/11/85	Chloroform	12.0	10.5	12.5
	1,2-dichloroethane	2.0	2.06	3.0
	1,1,1-trichloroethane	1.4	1.50	7.1
	Carbon tetrachloride	2.6	2.45	5.8
	Bromodichloromethane	2.0	1.77	11.5
	Trichloroethylene	2.9	3.04	4.8
	Bromoform	2.9	1.65	43.4

QA/QC Table 4.

CHROMATOGRAPHY CALIBRATION RANGE PROGRAM

- *(1) Weight of calibration material A= 1000 ug
- *(2) Weight of calibration material B= standard not used
- *(3) Volume of first stock A dilution= 1 ml
- *(4) Volume of first stock B dilution= standard not used

- *(5) LL dilution sequence= (.25E-03/.25)
- *(6) LC dilution sequence= (.025E-03/.25)
- *(7A) CA1 dilution sequence= (.0125/.25)
- *(7B) CA2 dilution sequence= standard not used
- *(8) CB dilution sequence= standard not used
- *(9) UC dilution sequence= (.025/.25)
- *(10) UL dilution sequence= (.05/.25)

- *(11) LL solution response= 11+ 4.5+ 8+ 8
- *(12) LC solution response= 23+ 10.05+ 20+ 20
- *(13) CA1 solution response= 46+ 21+ 41+ 41
- *(14) CA2 solution response= standard not used
- *(15) CB solution response= standard not used
- *(16) UC solution response= 40.5+ 18+ 36+ 37
- *(17) UL solution response= 86+ 42+ 79+ 78

PARAMETER	EC	CONCENTRATION	MEAN RESPONSE	ATTN
LOWER LIMIT (LL)	.5-.70%	100 ng/ml	7.8750E+00	5
LOWER CENTER (LC)	1.95%	250 ng/ml	1.8263E+01	5
CENTER STANDARD (CA1)	N/A	500 ng/ml	3.7250E+01	5
CENTER STANDARD (CA2)		standard not used		
CENTER STANDARD (CB)		standard not used		
UPPER CENTER (UC)	11.74%	1000 ng/ml	3.2675E+01	6
UPPER LIMIT (UL)	4.16%	3000 ng/ml	7.1250E+01	6

*CALCULATED CORRECTED SOLUTION CONCENTRATION = 5.000E+02 ng/ml

*MEAN CORRECTED CALIBRATION SOLUTION RESPONSE = 3.725E+01 at attenuation = 5

L = low, C = center, H = high, U = upper limit, S = standard deviation

QA/QC Table 4 was run on 10/17/2002 by [Signature] at [Signature] on date [Signature]

10/17/2002

QA/QC Table 5. Results of EMSL performance Evaluation Sample for PCBs

Aroclor ID	True Value (ug/g)	Recovered Value (ug/g)	% RE
1254	2.30	2.78	20.9

QA/QC Table 6. Duplicate Analysis for PCBs

Sample ID	Run 1 (ug/g)	Run 2 (ug/g)	RSD
STA-05 (Not Homogenized)	Aroclor 1254: 42.2 Aroclor 1260: 27.8	Aroclor 1254: ND Aroclor 1260: 18.6	141 % 28 %
STA-05 (Homogenized)	Aroclor 1254: 21.9 Aroclor 1260: 10.1	Aroclor 1254: 24.2 Aroclor 1260: 12.6	7.1% 15.6%

QA/QC Table 7. Results of Matrix Spike Analysis for PCBs

Sample No.	Aroclor ID	Spike Concentration	Recovered Conc.	% RE
STA-02	1260	73.5 ug/ml	0	100

QA/QC Table 8. Duplicate Analyses

All Concentration in ug/g (ppm)

Sample S-2

Parameter	Run 1	Run 2	Difference Run 1-Run 2	% Difference	RSD (%)
Mercury	ND	ND			
Arsenic	ND	ND			
Selenium	ND	ND			
Zinc	341	240	+101	30	24.6
Antimony	ND	ND			
Cadmium	ND	ND			
Nickel	ND	ND			
Chromium	107	117	-10	9.3	6.31
Copper	29.4	18.9	+10.5	35.4	30.7
Lead	145	101	+44	30	25.3
Beryllium	ND	ND			
Silver	3	ND			
Thallium	59.9	32.9	+27	45	41.1

QA/QC Table 9. Solution Concentration of Interfering Elements, ppm

Sample #	Fe	Al	Mg	Ca
S-1	129	20.8	7.88	15.0
S-2	168	14.3	6.71	54.2
S-2 Dup	84	11.9	3.4	25.6
S-3	1026	124	32.4	168
S-4	191	19.3	11.3	37
S-5 Spike	234	34	89.2	1678
S-5	214	28	83.6	1378

QA/QC Table 10. Sample Matrix Spike Results

All Concentration in ug/g (ppm)

Sample S-5

Parameter	Sample Conc. (ppm)	Spike Conc. (ppm)	Recovered Conc. (ppm)	% Recovered
Mercury	ND	--	--	--
Arsenic	ND	20.5	34.25	147
Selenium	37.1	9.3	29.7	319
Zinc	725	84	130	155
Antimony	123	--	--	--
Cadmium	20.7	7.4	8.55	116
Nickel	67.6	41.2	132	320
Chromium	114	51.5	85.5	166
Copper	83.8	67	108.5	162
Lead	196	86	160	186
Beryllium	2.00	64	78.5	123
Silver	5.59	--	--	--
Thallium	82.9	--	--	--

QA/QC Table 11. Sample Solution Spike Results

All Concentration in ug/g (ppm)

Sample S-4

Parameter	Sample Conc. (ppm)	Spike Conc. (ppm)	Recovered Conc. (ppm)	% Recovered
Mercury	ND	--	--	--
Arsenic	ND	250	281	112
Selenium	ND	250	295	118
Zinc	323	250	285	114
Antimony	75	250	246	98.2
Cadmium	ND	50	51.5	103
Nickel	11.1	250	260	104
Chromium	113	500	629	126
Copper	62.0	25	25.5	102
Lead	63.9	--	--	--
Beryllium	ND	5.0	5.6	112
Silver	3	--	--	--
Thallium	39.4	--	--	--

Sample S-5

Parameter	Sample Conc. (ppm)	Spike Conc. (ppm)	Recovered Conc. (ppm)	% Recovered
Mercury	ND	500.	536	107
Lead	151	500.	656	131
Silver	5.59	500.	577	115

QA/QC Table 12. EMSL PES

All Concentrations in ug/g (ppm)

Sample: Metals I, Concentration 2

Parameter	Analyses (ppm)	True Value (ppm)	95% Confidence Range (ppm)	% Relative Error
Mercury	50.0	0.87	0.59 - 1.11	--
Arsenic	18.4	23.5	18.2 - 28.6	22.
Selenium	ND	5.0	3.13 - 6.21	100.
Zinc	42.0	41.8	38.1 - 44.9	0.5
Antimony	--	--	--	--
Cadmium	4.00	3.90	3.1 - 4.28	2.6
Nickel	21.4	20.7	17.7 - 23.5	3.4
Chromium	30.1	26.1	21.0 - 30.6	15.3
Copper	31.4	33.9	30.2 - 36.8	7.4
Lead	45.6	43.5	38.9 - 49.1	4.8
Beryllium	32.0	23.5	20.7 - 25.7	36.2
Silver	--	--	--	--
Thallium	--	--	--	--

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

R. John S.
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ NO.	PROJECT NAME					NO. OF CONTAINERS	PRIORITY VOLATILE					REMARKS	
87CY08	U.S. Steel - Gary						2	1	1	1	1		1
SAMPLERS (Signature)	Sally Matz						1	1	1	1	1		1
STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION								TAG #
501	10-7	1040	/	X	W 4 1/2' N of R.R. Channel 5-6 ft. plus	2-8oz	✓						EPA TAG # 5-163865 / 163871
501	10-7	1040	/	X	13' N of Line 7 "	1-12ozml	X						5-163872
502	10-7	1055	/	X	7' S of LINE 11	2-8oz	✓						5-163866 / 163364
502	10-7	1055	/	X	"	2-12ozml	X						5-163881 / 5-163881
503	10-7	1110	/	X	9' N of LINE 16	2-8oz	✓						5-163867 / 5-163882
503	1110	/	X		"	2-12ozml	X						5-163883 / 5-163884
504	1135	/	X		11' E. of LINE 24	2-8oz	X						5-163868 / 5-163888
504	1135	/	X		"	2-12ozml	X						5-163889 / 5-163886
505	1205	/	X		23' N of LINE 20	2-8oz	X						5-163869 / 5-163887
505	1205	/	X		"	2-12ozml	X						5-163870 / 5-163873
Relinquished by: (Signature)		Date / Time	Received by: (Signature)			Relinquished by: (Signature)		Date / Time	Received by: (Signature)				
Sally Matz		10/7/05 10:00	P. Vecchione										
Relinquished by: (Signature)		Date / Time	Received by: (Signature)			Relinquished by: (Signature)		Date / Time	Received by: (Signature)				
Relinquished by: (Signature)		Date / Time	Received for Laboratory by: (Signature)			Date / Time		Remarks					

PURGEABLES - Method 624 (modification for GC/FID)

SAMPLE ID: _____

STANDARD ID: 50 ppb A+B + 45

DATE: 10/8/85

QA/QC'd: _____

PARAMETER	RT	RESPONSE	DAILY STANDARD RESPONSE	CONC (ug/L)
CHLOROMETHANE		not	analyzed	
BROMOMETHANE		not	analyzed	
VINYL CHLORIDE		not	analyzed	
CHLOROETHANE		not	analyzed	
METHYLENE CHLORIDE	4.82	23210		
TRICHLOROFLUOROMETHANE	—	not	analyzed	
1,1-DICHLOROETHENE	7.02	34300		
1,1-DICHLOROETHANE	8.26	37490		
TRANS-1,2-DICHLOROETHENE	8.89	38070		
CHLOROFORM	9.55	139100		
1,2-DICHLOROETHANE	10.21	33120		
1,1,1-TRICHLOROETHANE	11.41	27160		
CARBON TETRACHLORIDE	11.78	10380		
BROMODICHLOROMETHANE	12.41	15450		
1,2-DICHLOROPROPANE	13.63	51680		
TRANS-1,3-DICHLOROPROPENE	13.93	20070		
TRICHLOROETHENE	14.45	30630		
BENZENE	14.86	140400		
*BIBROMOCHLOROMETHANE	15.20	88720		
*1,1,2-TRICHLOROETHANE	—	—		
*CIS-1,3-DICHLOROPROPENE	—	—		
2-CHLOROETHYL VINYL ETHER	—	not	analyzed	
BROMOFORM	17.87	5176		
#1,1,2,2-TETRACHLOROETHANE	20.11	38570		
#TETRACHLOROETHENE	—	—		
TOLUENE	21.28	145000		
CHLOROBENZENE	22.48	109500		
ETHYL BENZENE	24.64	144800		
1,3-DICHLOROBENZENE		not	analyzed	
1,2-DICHLOROBENZENE		not	analyzed	
1,4-DICHLOROBENZENE		not	analyzed	

*#: coeluting compounds

INTERNAL STANDARD RECOVERY

BROMOCHLOROMETHANE	17.62	119.80	104.3 %	
--------------------	-------	--------	---------	--

Column conditions: Carbopak B (60/80 mesh) coated with 1% SP-1000 in a 6' x 2 mm ID glass column with He carrier at 30 ml/min., at 60°C for 3 min., then programmed at 80°C per min. to 220°C and held.

START 0.13
1.05

new
bottled
water

10.69

Purity Brand
"Infants and Children's
Water"

21.23

HP RUN # 199

ID: 111061

STD

OCT/08/85

TIME 12:24:15

RT	EXP RT	AREA	CAL #	AMT
21.23	21.23	362	17	0.140

DIL FACTOR: 1.0000 E+ 0

TEMP1	400	60	164
TIME1	3.00		
RATE	8.00		
TEMP2	400	210	
TIME2	20.00		
INJ TEMP	400	215	215
FID TEMP	400	250	250
TCD TEMP	400	250	250
AUX TEMP	400	200	200

CHT SPD	1.00
ZERO	10.0
ATTN 2↑	4
FID SGNL	A
SLP SENS	0.15
ARFA RF.I	

HP RUN # 199

ID: 111061

AREA %

OCT/08/85

TIME 12:24:15

RT	AREA	AREA %
0.13	59	3.912
1.05	97	6.432
10.69	998	65.650
21.23	362	24.005

DIL FACTOR: 1.0000 E+ 0

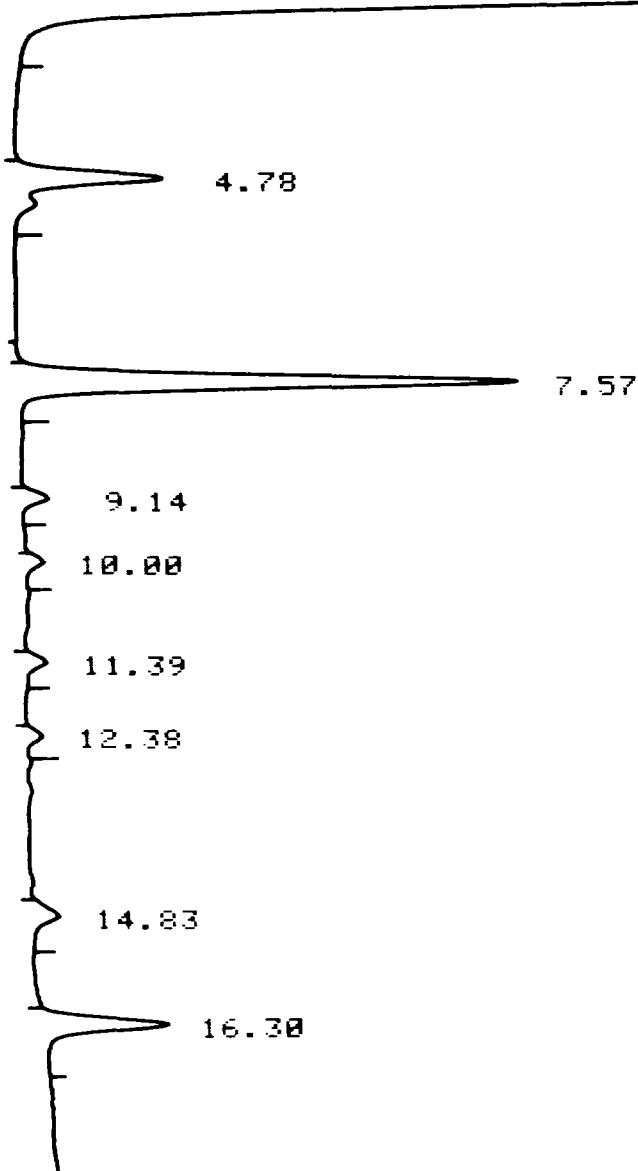
TEMP1 400 60 60
TIME1 3.00
RATE 8.00
TEMP2 400 210
TIME2 20.00
INJ TEMP 400 215 215
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 200 200

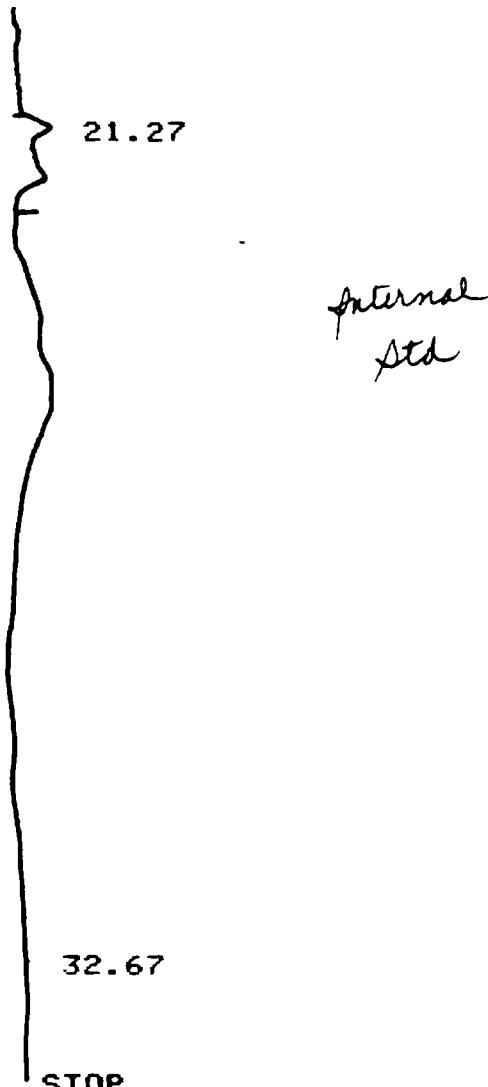
water
at 40

CHT SPD 1.00
ZERO 10.0
ATTN 2↑ 4
FID SGNL A
SLP SENS 0.15
AREA REJ 0
FLOW A 0.0 28.9
FLOW B 0.0 34.7

START

1.66





HP RUN # 195
D:111061

OCT/08/85

TIME 08:44:09

/ STD

RT	EXP RT	AREA	CAL #	AMT
4.78	4.77	3772	2	9.204
7.57	7.63	11490	(R) 1	108.396
10.00	10.14	368	7	0.614
11.39	11.34	354	00	0.719
12.38	12.34	270	10	1.148
14.83	14.76	738	14	0.289
21.27	21.15	2212	10	0.851

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 132
 TIME1 3.00
 RATE 8.00
 TEMP2 400 210
 TIME2 20.00
 INJ TEMP 400 215 215
 FID TEMP 400 250 250
 TCD TEMP 400 250 250
 AUX TEMP 400 200 200

FID SIGNL M
SLP SENS 0.15
AREA REJ 0
FLOW A 0.0 28.9
FLOW B 0.0 27.4

HP RUN # 195

OCT/08/85

TIME 08:44:09

ID: 111061

AREA %

RT	AREAS	AREA %
1.66	502900	95.709
4.78	3772	0.718
7.57	11490	2.187
9.14	503	0.096
10.00	368	0.070
11.39	354	0.067
12.38	270	0.051
14.83	738	0.140
16.30	2838	0.540
21.27	2212	0.421

DIL FACTOR: 1.0000 E+ 0

CALIB ESTD

% RTW:

? ESCAPE

CALIB ESTD

% RTW: 5

RT	AMT
REF: 7 . 5 7	: 1 0 0

DIL FACTOR: 1

READY

ESTD

% RTW: 5.00

CALIB RUNS 1

CAL #	RT	AMT	AMT/AREAS
(R) 1	7.57	1.0000 E+ 2	8.7032 E- 3

DIL FACTOR: 1.0000 E+ 0

START

1.67

methylene chloride

4.82

ATTN 2+7 2

50ppm Hb

7.02 1,1-dichloroethene

7.62 45

8.26 1,1-dichloroethane

8.89 trans-1,2-dichloroethene

9.55 chloroform

10.21 1,2-dichloroethane

10.84

11.41 1,1,1-trichloroethane

11.78 Carbon tetrachloride

12.41 Bromo dichloro methane

13.63 1,2-dichloropropane

13.93 trans-1,3-dichloropropene

14.45 trichloroethene

benzene

14.86

15.20 #3 coolers

16.27

17.12

17.87 bromoform

19.19

20.11 #2 coolers

toluene

21.26

21.75

chlorobenzene

22.48

ethyl benzene

24.64

38.95

STOP

HP RUN # 196
D:111061
ESTD

OCT/08/85

TIME 09:28:47

RT	EXP RT	AREA	CAL #	AMT
7.62	7.57	11980	(R) 1	104.265

AIL FACTOR: 1.0000 E+ 0

TEMP1	400	60	165
TIME1		3.00	
RATE		8.00	
TEMP2	400	210	
TIME2		20.00	
INJ TEMP	400	215	215
FID TEMP	400	250	250
TCD TEMP	400	250	250
AUX TEMP	400	200	200

CHT SPD	1.00	
ZERO	10.0	
ATTN 2↑	7	
FID SGNL	A	
SLP SENS	0.15	
AREA REJ	0	
FLOW A	0.0	28.9
FLOW B	0.0	24.9

RT	AREA	AREA %
1.67	1067000	49.798
4.82	23210	1.083
7.02	34300	1.601
7.62	11980	0.559
8.26	37490	1.750
8.89	38070	1.777
9.55	13960	0.652
10.21	33120	1.546
10.84	1723	0.080
11.41	27160	1.268
11.78	10380	0.484
12.41	15450	0.721
13.63	51680	2.412
13.93	20070	0.937
14.45	30630	1.430
14.86	140400	6.553
15.20	88720	4.141
16.27	48740	2.275
17.12	1064	0.050
17.87	5176	0.242
19.19	682	0.032
20.11	38570	1.800
21.28	145000	6.766
21.76	1413	0.066
22.03	1793	0.084
22.48	109500	5.111
24.64	144800	6.758
30.95	568	0.027

DIL FACTOR: 1.0000 E+ 0

CALIB ESTD
% RTW: 5

RT	AMT
1.10	1.00
1.40	0.40
1.60	0.16
1.80	0.08
2.00	0.04
2.20	0.02
2.40	0.01
2.60	0.005
2.80	0.002
3.00	0.001
3.20	0.0005
3.40	0.0002
3.60	0.0001
3.80	0.00005
4.00	0.00002
4.20	0.00001
4.40	0.000005
4.60	0.000002
4.80	0.000001
5.00	0.0000005

DIL FACTOR: 1

READY

CALIB ESTD
% RTW: 5

RT	AMT
1.10	1.00
1.40	0.40
1.60	0.16
1.80	0.08
2.00	0.04
2.20	0.02
2.40	0.01
2.60	0.005
2.80	0.002
3.00	0.001
3.20	0.0005
3.40	0.0002
3.60	0.0001
3.80	0.00005
4.00	0.00002
4.20	0.00001
4.40	0.000005
4.60	0.000002
4.80	0.000001
5.00	0.0000005

START 0.09

DOPP A+b
run

1.58

4.88

7.01

7.68

8.24

8.88

9.53

10.20

10.85

11.40

11.77

12.39

13.61

13.90

14.42

14.84

15.17

16.22

17.08

17.83

19.16

20.06

20.99

21.23

22.43

24.58

HP RUN # 198

OCT/08/85

TIME 11:04:23

ID: 111061

FSTD

RT	EXP RT	AREA	CAL #	RMT
17.83	17.87	4413	(R)	42.629
20.06	20.06	32620	2	42.287
21.23	21.23	129400	3	44.621
22.43	22.42	90580	4	41.361
24.58	24.58	126500	5	43.681

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 143
TIME1 3.00
PATE 8.00
TEMP2 400 210
TIME2 20.00
INJ TEMP 400 215 215
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 200 200

CHT SPD 1.00

ZERO 10.0

ATTN 2↑ 4

FID SGNL A

FLOW A 0.0 20.0
FLOW B 0.0 26.4

HP RUN # 198
ID: 111061
AREA Z

OCT/08/85

TIME 11:04:23

RT	AREA	AREA %
8.09	44	0.003
1.58	606700	39.761
4.80	19180	1.257
7.01	29840	1.956
7.60	10420	0.683
8.24	33520	2.197
8.88	33920	2.223
9.53	12460	0.817
10.20	28480	1.866
10.85	905	0.059
11.40	24220	1.587
11.77	9232	0.605
12.39	11050	0.724
13.61	45510	2.983
13.90	17310	1.134
14.42	27120	1.777
14.84	126700	8.303
15.17	75260	4.932
16.22	28120	1.843
17.08	893	0.059
17.83	4413	0.289
19.16	291	0.019
20.06	32620	2.138
20.89	1189	0.078
21.23	129400	8.480
22.43	90580	5.936
24.58	126500	8.290

DIL FACTOR: 1.0000 E+ 0

CALIB ESTD
% RTW: 4

DIL FACTOR: 1

PURGEABLES - Method 624 (modification for GC/FID)

Burdick and Jackson
100 uL

SAMPLE ID: Methanol Blank 10 mL

STANDARD ID: 50 PPB A+B

DATE: 10/8/84

QA/QC'd: _____

PARAMETER	RT	RESPONSE	DAILY STANDARD RESPONSE	CONC (ug/L)
CHLOROMETHANE		not	analyzed	
BROMOMETHANE		not	analyzed	
VINYL CHLORIDE		not	analyzed	
CHLOROETHANE		not	analyzed	
METHYLENE CHLORIDE	4.85	1514	23210	3.26
TRICHLOROFLUOROMETHANE	—	not	analyzed	—
1,1-DICHLOROETHENE	—	—	—	
1,1-DICHLOROETHANE	8.30	280	37490	.37
TRANS-1,2-DICHLOROETHENE		—	—	—
CHLOROFORM		—	—	—
1,2-DICHLOROETHANE	8.70	—	—	—
1,1,1-TRICHLOROETHANE	11.47	515	27160	.95
CARBON TETRACHLORIDE	11.80	953	10380	4.59
BROMODICHLOROMETHANE	12.49	6772	15450	21.9
1,2-DICHLOROPROPANE	—	—	—	—
TRANS-1,3-DICHLOROPROPENE	—	—	—	—
TRICHLOROETHENE	14.44	1031	30630	1.68
BENZENE	14.82	5823	140400	2.02
*DIBROMOCHLOROMETHANE	—	—	—	—
*1,1,2-TRICHLOROETHANE	—	—	—	—
*CIS-1,3-DICHLOROPROPENE	—	—	—	—
2-CHLOROETHYL VINYL ETHER	—	not	analyzed	—
BROMOFORM	—	—	—	—
#1,1,2,2-TETRACHLOROETHANE	—	—	—	—
#TETRACHLOROETHENE	20.02	864	38570	1.12
TOLUENE	21.34	7006	145000	2.42
CHLOROBENZENE	—	—	—	—
ETHYL BENZENE	24.75	977	144800	.34
1,3-DICHLOROBENZENE		not	analyzed	
1,2-DICHLOROBENZENE		not	analyzed	
1,4-DICHLOROBENZENE		not	analyzed	
* #: coeluting compounds				
INTERNAL STANDARD RECOVERY				
BROMOCHLOROMETHANE	7.67	1110	106.6 %	

Column conditions: Carbopak B (60/80 mesh) coated with 1% SP-1000 in a 6' x 2 mm ID glass column with He carrier at 30 ml/min., at 60°C for 3 min., then programmed at 80°C per min. to 220°C and held.

STOP

N 200

OCT/88/85

TIME 14:00:02

E 400

60

60

I 0.10

Meth H₁₁
Purdie
and Gp

5.17 4.85 methylenechloride

7.67 40

8.30 1,1-dichloroethane

9.23

10.10

11.47 1,1,1-trichloroethane

100ul methanol

11.80 carbon tet.

10ml

12.49 Bromodichloromethane

13.21

14.44 trichloroethylene

14.82 Benzene

16.39

19.01

20.02 #2 coeluters

20.81

21.34 toluene

21.96

23.18

29.97

31.19

STOP

HP RUN # 201
ID: 111061
ESTD

OCT/08/85

TIME 14:12:19

RT	EXP RT	AREA	CAL #	AMT
7.67	7.60	11110	2	106.622
8.30	8.24	280	3	0.418
10.10	10.20	8094	6	14.210
11.47	11.40	515	7	1.063
11.80	11.77	953	8	5.161
12.49	12.39	6772	9	38.643
14.44	14.42	1031	12	1.901
14.82	14.84	5823	13	2.298
20.02	20.06	864	16	1.324
21.34	21.23	7006	17	2.707
24.75	24.58	977	19	0.386

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 118
TIME1 3.00
RATE 8.00
TEMP2 400 210
TIME2 20.00
INJ TEMP 400 215 215
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 200 200

CHT SPD 1.00
ZERO 10.0
ATTN 2↑ 4
FID SGNL A
SLP SENS 0.15
AREA REJ 0
FLOW A 0.0 28.7
FLOW B 0.0 28.2

HP RUN # 201
ID: 111061
AREA %

OCT/08/85

TIME 14:12:19

RT	AREA	AREA %
8.18	100	0.000

17	914	0.014
67	11110	0.165
38	280	0.004
2	11270	0.167
	8094	0.120
5	515	0.008
80	953	0.014
.49	6772	0.100
.21	2647	0.039
.44	1031	0.015
.82	5823	0.086
.39	54960	0.815
.01	1153	0.017
1.82	864	0.013
1.81	153	0.002
1.34	7006	0.104
1.96	1305	0.019
3.18	271	0.004
4.75	977	0.014
9.97	1297	0.019
1.19	1087	0.016

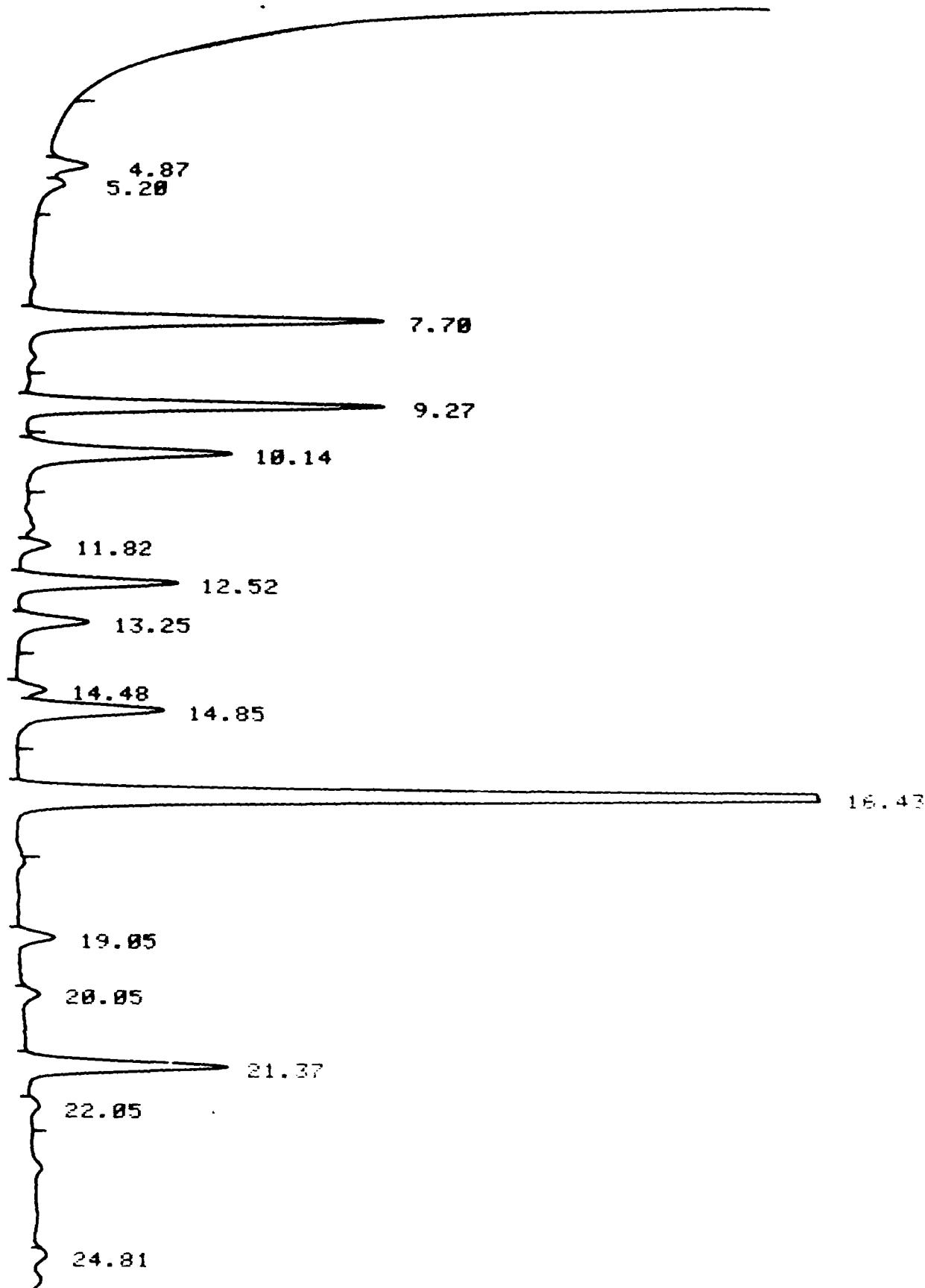
L SECTOR: 1.0000 E+ 0

TEMP1
START

400 60 64

meat
beef
~~100ml~~
~~10ml~~

8.79



S20948

P RUN # 202
D:111061
ESTD

OCT/08/85

TIME 14:56:06

RT	EXP RT	AREA	CAL #	AMT
7.70	7.60	11090	2	106.430
10.14	10.20	7222	6	12.679
11.82	11.77	625	8	3.385
12.52	12.39	4881	9	22.086
14.48	14.42	772	12	1.423
14.85	14.84	5742	13	2.266
20.05	20.06	709	16	1.087
21.37	21.23	6456	17	2.495
22.05	22.43	348	18	0.192
24.81	24.58	828	19	0.327

DIL FACTOR: 1.0000 E+ 0

ESCAPE

START

1

0.80

Neott
leach
fisher

1.68

4.85
5.18

7.67

8.33
8.78

9.24

10.11

11.26
11.79

12.48

12.82
13.20

14.44

14.81

16.39

19.00

20.02

21.33

22.05

24.72

27.98
29.97
31.11

STOP

P RUN # 203
D:111061
STD

OCT/08/85

TIME 15:35:23

RT	EXP RT	AREA	CAL #	AMT
7.67	7.60	10940	2	104.990
8.33	8.24	241	3	0.359
8.78	8.88	159	4	0.234
10.11	10.20	7666	5	13.459
11.26	11.40	438	7	0.904
11.79	11.77	832	8	4.506
12.48	12.39	5809	9	26.285
13.44	14.42	996	12	1.836
14.81	14.84	6722	13	2.653
20.02	20.06	691	16	1.059
21.33	21.23	8150	17	3.149
22.05	22.43	466	18	0.257
24.72	24.58	1361	19	0.538

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 112
TIME1 3.00
RATE 8.00
TEMP2 400 210
TIME2 20.00
INJ TEMP 400 215 215
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 200 200

CHT SPD 1.00
ZERO 10.0
ATTN 2↑ 4
FID SGNL A
R.15

> RUN # 203

D 1061

Z%

OCT/08/85

TIME 15:35:23

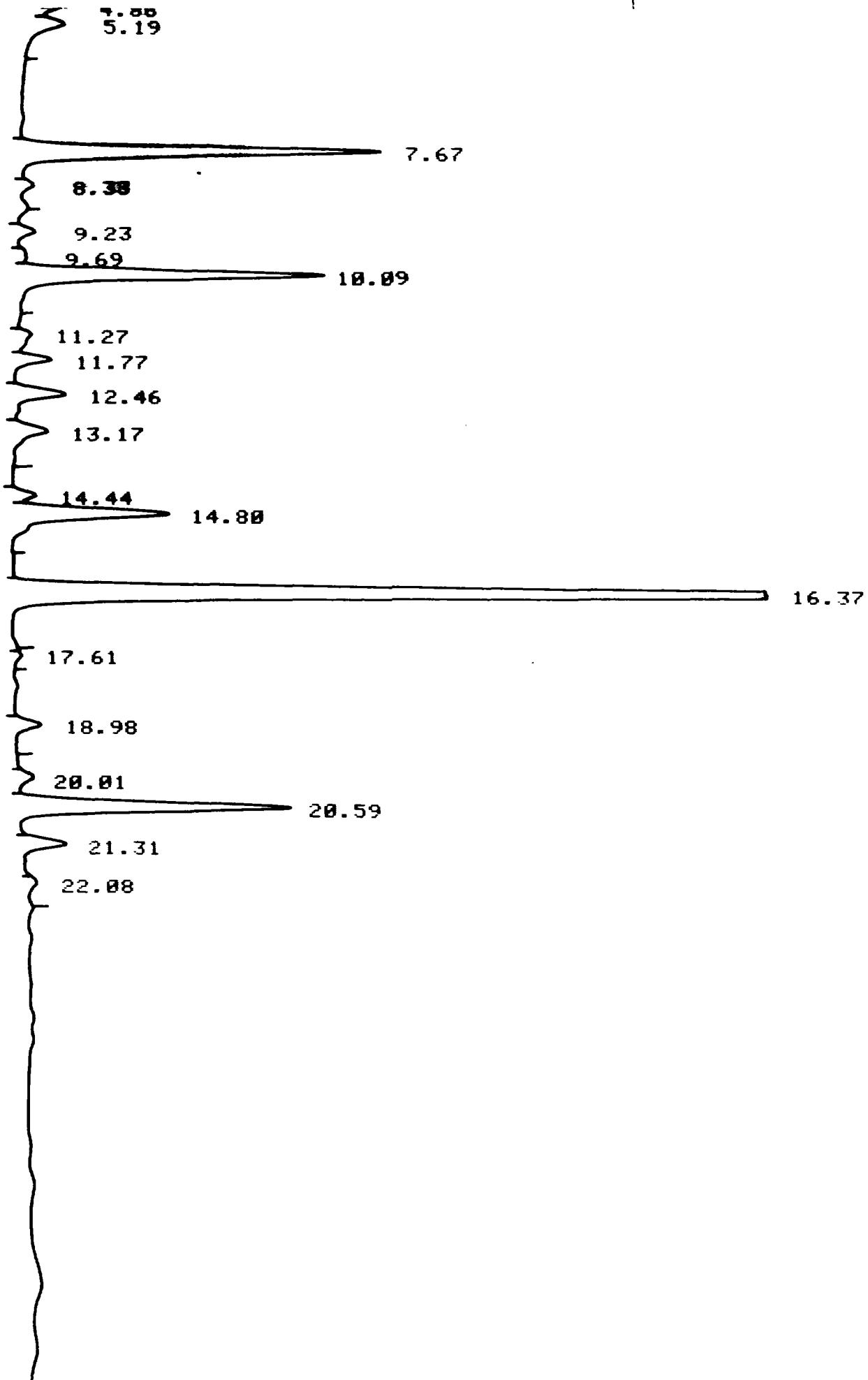
RT	AREA	AREA %
0.80	109	0.001
1.68	7710000	98.514
4.85	1257	0.016
5.18	943	0.012
7.67	10940	0.140
8.33	241	0.003
8.78	159	0.002
9.24	10740	0.137
10.11	7666	0.098
11.26	438	0.006
11.79	832	0.011
12.48	5809	0.074
12.82	408	0.005
13.20	2874	0.037
13.44	996	0.013
13.81	6722	0.086
16.39	46760	0.597
19.00	1846	0.024
20.02	691	0.009
21.33	8150	0.104
22.05	466	0.006
24.72	1361	0.017
27.98	3428	0.044
29.97	2122	0.027
1.11	1317	0.017

DIL FACTOR: 1.0000 E+ 0

Me off Blank

START

1.64



STOP

HP RUN # 204
D:111061
STD

OCT/08/85

TIME 16:24:54

RT	EXP RT	AREA	CAL #	AMT
7.67	7.68	11580	2	111.132
8.33	8.24	368	3	0.549
9.69	9.53	345	5	1.384
10.09	10.20	10240	6	17.978
11.27	11.40	591	7	1.220
11.77	11.77	1094	8	5.925
12.46	12.39	2011	9	9.100
14.44	14.42	630	12	1.162
14.80	14.84	6444	13	2.543

ESCAPE

*Initial
Review
Sheet*

PURGEABLES - Method 624 (modification for GC/FID)

5mL EMSL 483 Conc 1

SAMPLE ID: 10 mL water

STANDARD ID: 5 ppb A+B

DATE: 10/8/85

QA/QC'd: _____

PARAMETER	RT	RESPONSE	DAILY STANDARD RESPONSE	CONC (ug/L)	% Recovery
CHLOROMETHANE		not	analyzed		
BROMOMETHANE		not	analyzed		
VINYL CHLORIDE		not	analyzed		
CHLOROETHANE		not	analyzed		
METHYLENE CHLORIDE					
TRICHLOROFLUOROMETHANE		not	analyzed		
1,1-DICHLOROETHENE					
1,1-DICHLOROETHANE					
TRANS-1,2-DICHLOROETHENE					
CHLOROFORM	9.58	7740	139400	27.7 = 111	92.5
1,2-DICHLOROETHANE	10.25	3745	33120	5.73 = 2.29	114.5
1,1,1-TRICHLOROETHANE	11.44	2250	27160	4.14 = 1.66	118.6
CARBON TETRACHLORIDE	11.81	1293	10380	6.23 = 2.49	95.8
BROMODICHLOROMETHANE	12.44	1161	15450	3.76 = 1.50	15.0
1,2-DICHLOROPROPANE					
TRANS-1,3-DICHLOROPROPENE					
TRICHLOROETHENE	14.42	4287	30630	7.00 = 2.8	96.6
BENZENE					
*DIBROMOCHLOROMETHANE	15.19	No Inter - Cannot quantify			
*1,1,2-TRICHLOROETHANE					
*CIS-1,3-DICHLOROPROPENE					
2-CHLOROETHYL VINYL ETHER		not	analyzed		
BROMOFORM	17.86	638	5170	6.16 = 2.46	84.8
#1,1,2,2-TETRACHLOROETHANE					
#TETRACHLOROETHENE	20.06	No Inter - Cannot quantify			
TOLUENE	21.29	790	145000	.27 ND	ND
CHLOROBENZENE					
ETHYL BENZENE					
1,3-DICHLOROBENZENE		not	analyzed		
1,2-DICHLOROBENZENE		not	analyzed		
1,4-DICHLOROBENZENE		not	analyzed		
*& #: coeluting compounds					
INTERNAL STANDARD RECOVERY					
BROMOCHLOROMETHANE	7.65	9438	90.6 %		

Column conditions: Carbopak B (60/80 mesh) coated with 1% SP-1000 in a 6' x 2 mm ID glass column with He carrier at 30 ml/min., at 60°C for 3 min., then programmed at 80°C per min. to 220°C and held.

20mL _{10mL} = EMSL Dilution Our Dilution: 5/10mL

EMSL
HGS
Cone 1

ART
I

8.76

7.65↓

9.28

9.58 Chloroform

10.25 1,2-dichloroethane

11.44 1,1,1-trichloroethane

11.81 carbon tetrachloride

12.44 bromo dichloro methane

12.73

$\frac{5.0 \mu\text{l}}{10 \text{ ml}}$ EMSL

14.47 trichloroethylene

14.75 bromo chloro methane

15.19

16.33

17.86 bromoform

18.96

20.06 ~~tetrachloroethylene~~ tetrachloroethylene

20.49

21.29 toluene

21.96

S20030

HP RUN # 205
ID: 111061
ESTD

OCT/08/85

TIME 17:10:12

APFA

CAL # AMT

10.25	10.20	3795	6	6.663
11.44	11.40	2250	7	4.645
11.81	11.77	1293	8	7.003
12.44	12.39	1161	9	5.253
14.47	14.42	4287	12	7.904
14.75	14.84	792	13	0.313
15.19	15.17	1016	14	0.675
17.86	17.83	638	15	7.229
20.06	20.06	2135	16	3.273
21.29	21.23	790	17	0.305

DIL FACTOR: 1.0000 E+ 0

TEMP1	400	60	109
TIME1	3.00		
RATE	8.00		
TEMP2	400	210	
TIME2	20.00		
INJ TEMP	400	215	215
FID TEMP	400	250	250
TCD TEMP	400	250	250
AUX TEMP	400	200	200

CHT SPD	1.00		
ZERO	10.0		
ATTN 2↑	4		
FID SGNL	A		
SLP SENS	0.15		
AREA REJ	0		
FLOW A	0.0	28.8	
FLOW B	0.0	29.7	

HP RUN # 205

OCT/08/85

TIME 17:10:12

ID: 111061

AREA %

RT	AREA	AREA %
1.62	835200	95.570
7.65	9438	1.080
9.20	303	0.035
9.58	7740	0.886
10.25	3795	0.434
11.44	2250	0.257
11.81	1293	0.148
12.44	1161	0.133
13.73	426	0.049
14.47	4287	0.491
14.75	792	0.091
15.19	1016	0.116
16.33	1816	0.208
17.86	638	0.073
18.96	63	0.007
20.06	2135	0.244
20.49	363	0.042
21.29	790	0.090
21.96	412	0.047

DIL FACTOR: 1.0000 E+ 0

107.2

9.33g soil / 10ml MeOH Total Dilution Factor = ~~1000~~

PURGEABLES - Method 624 (modification for GC/FID)

SAMPLE ID: US SCRAP SITE STA-01 100µL
10mL

STANDARD ID: 50 ppb A+B

DATE: 10/8/85

QA/QC'd:

PARAMETER	RT	RESPONSE	DAILY STANDARD RESPONSE	CONC (ug/L) in water
CHLOROMETHANE		not	analyzed	
BROMOMETHANE		not	analyzed	
VINYL CHLORIDE		not	analyzed	
CHLOROETHANE		not	analyzed	
METHYLENE CHLORIDE	4.27	547		
TRICHLOROFLUOROMETHANE	—	not	analyzed	ND (Blank MeOH higher)
T, T-DICHLOROETHENE	6.19	276	34300	.40 ← .04 .597
T, T-DICHLOROETHANE	8.21	1295-280	33400	5.57 ← 14.5
TRANS-1, 2-DICHLOROETHENE				
CHLOROFORM				
T, 2-DICHLOROETHANE				
T, T, T-TRICHLOROETHANE	11.37	4688-515	27160	7.7
CARBON TETRACHLORIDE				
BROMODICHLOROMETHANE	12.36	1822-6772	—	ND (Blank higher)
T, 2-DICHLOROPROPANE	12.71	2063	51680	2.0
TRANS-1, 3-DICHLOROPROPENE				
TRICHLOROETHENE	14.36	1082-1031	30630	ND
BENZENE	14.70	4455-5823	—	ND (Blank higher)
*DIBROMOCHLOROMETHANE				
*T, T, 2-TRICHLOROETHANE	15.15	944	88720	.53 BMDL
*CIS-1, 3-DICHLOROPROPENE				
2-CHLOROETHYL VINYL ETHER	—	not	analyzed	
BROMOFORM	17.85	1522	5176	14.7
#1, 1, 2, 2-TETRACHLOROETHANE	20.02	10830-864	38570	12.9
#TETRACHLOROETHENE				
TOLUENE	21.23	195700-700	145000	65.1
CHLOROBENZENE	22.48	10900-37540	109500	17.1
ETHYL BENZENE	24.24	144800-2400	144800	51.4
1, 3-DICHLOROBENZENE		not	analyzed	
1, 2-DICHLOROBENZENE		not	analyzed	
1, 4-DICHLOROBENZENE		not	analyzed	

*# #: coeluting compounds

INTERNAL STANDARD RECOVERY

BROMOCHLOROMETHANE	7.58	10000	96.0 %	
--------------------	------	-------	--------	--

Column conditions: Carbopak B (60/80 mesh) coated with 1% SP-1000 in a 6' x 2 mm ID glass column with He carrier at 30 ml/min., at 60°C for 3 min., then programmed at 80°C per min. to 220°C and held.

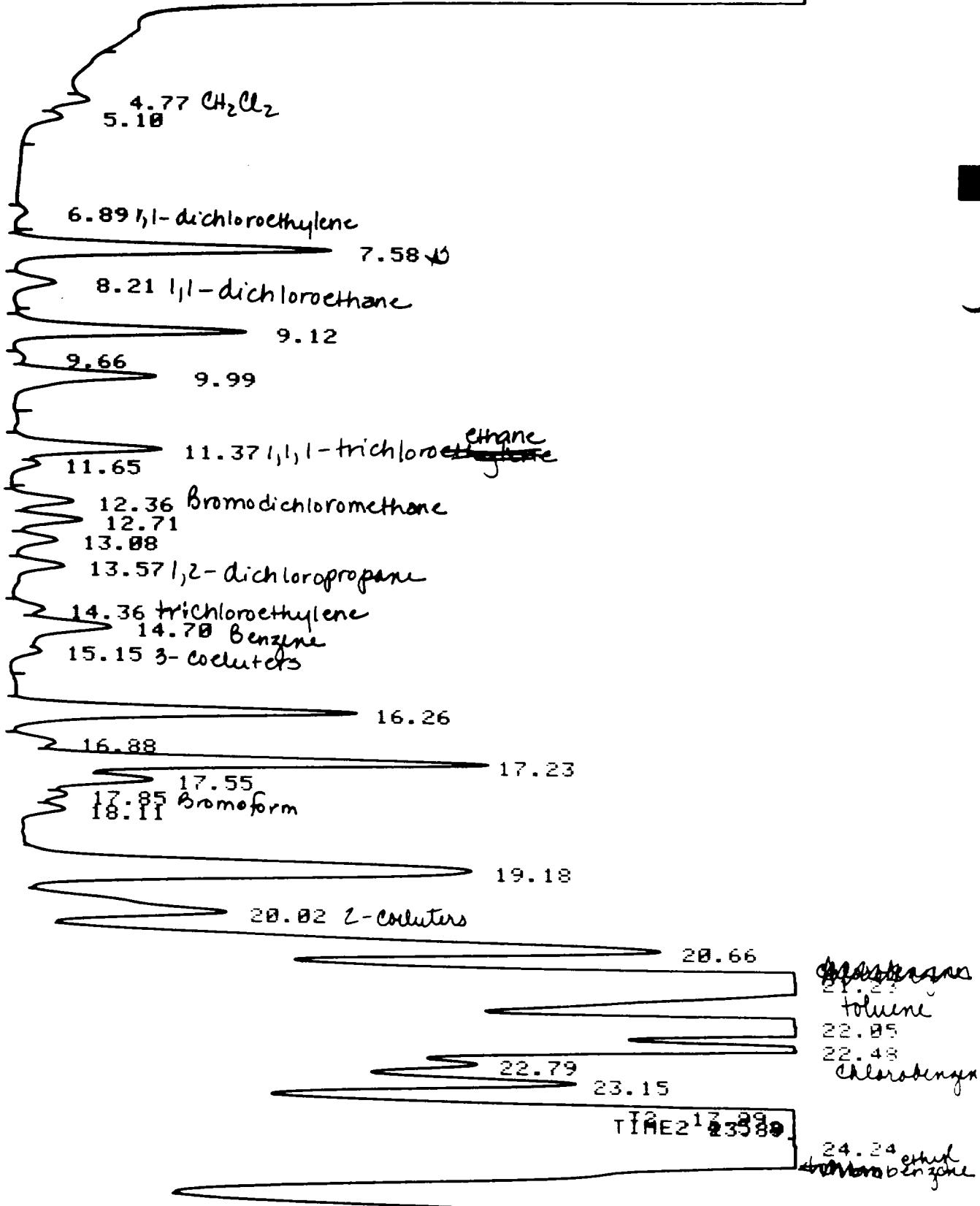
Check d
X-77

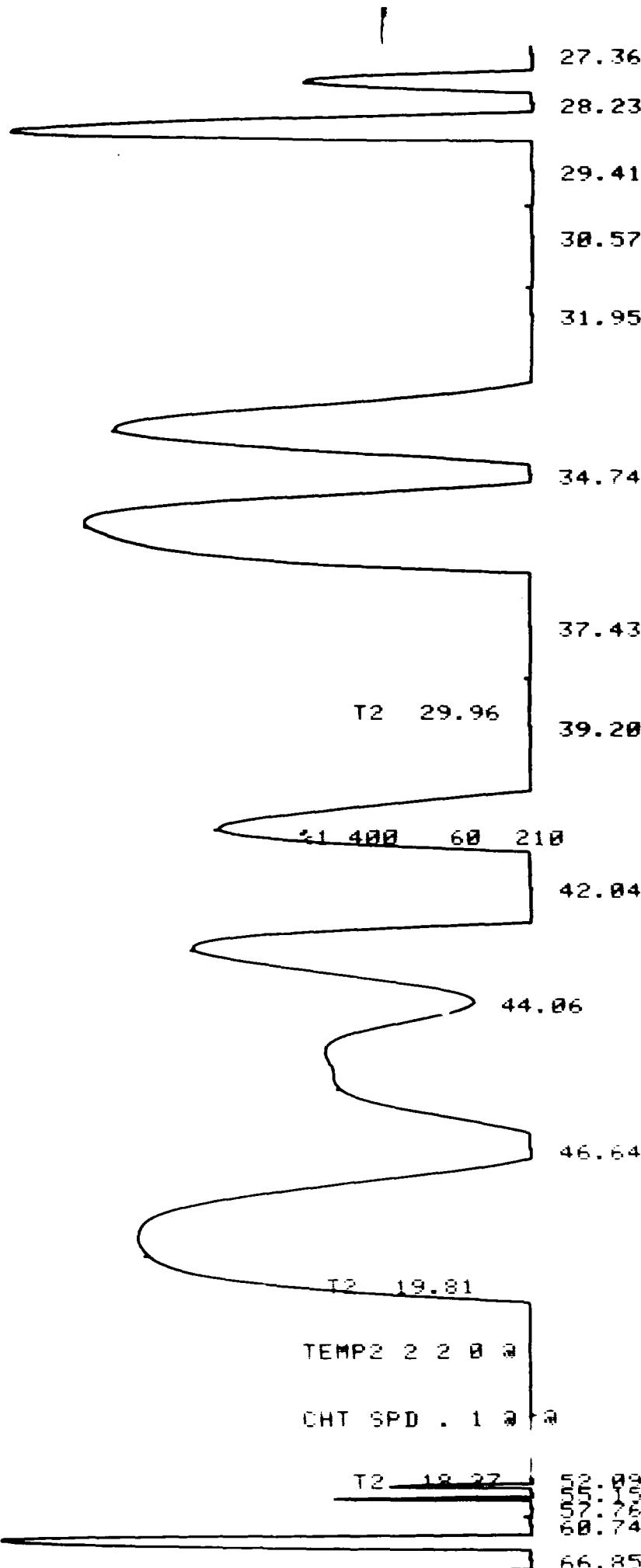
START

2↑ 4

Start 9.339 Total 10.000

1.76





ID: 111061
ESTD

HP RUN # 206

OCT/08/85

TIME 17:45

RT	EXP RT	AREA	CRL #	AMT
6.89	7.01	276	(R) 1	0.462
7.58	7.46	10000	2	95.969
8.21	8.09	1295	3	1.932
9.99	10.02	5198	6	9.126
11.37	11.20	4688	7	9.678
11.65	11.56	749	8	4.057
12.36	12.17	1822	9	8.244
13.57	13.66	1903	11	5.497
14.36	14.17	1082	12	1.995
14.70	14.58	4455	13	1.758
15.15	14.91	944	14	0.627
17.55	17.52	4733	15	53.626
20.02	19.71	10830	16	16.600
20.66	20.86	37340	17	14.428
22.05	22.04	93080	18	51.380
24.24	24.15	148900	19	58.854

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 106

TIME1 3.00

RATE 8.00

TEMP2 400 220

TIME2 45.00

INJ TEMP 400 215 215

FID TEMP 400 250 250

TCD TEMP 400 250 250

AUX TEMP 400 200 200

CHT SPD 0.10

ZERO 10.0

ATTN 2↑ 4

FID SGNL A

SLP SENS 0.15

AREA REJ 0

FLOW A 0.0 28.8

FLOW B 0.0 30.0

HP RUN # 206

OCT/08/85

TIME 17:45:28

ID: 111061

AREA %

RT	AREA	AREA %
1.76	6984000	26.045
4.77	547	0.002
5.10	104	0.000
6.89	276	0.001
7.58	10000	0.037
8.21	1295	0.005
9.12	6852	0.026
9.66	353	0.001
9.99	5198	0.019
11.37	4688	0.017
11.65	749	0.003
12.36	1822	0.007
12.71	2063	0.008
13.08	1502	0.006

10.10	744	0.004
16.26	11180	0.042
16.88	1303	0.005
17.23	15810	0.059
17.55	4733	0.018
17.85	1522	0.006
18.11	2029	0.008
19.18	25860	0.096
20.02	10830	0.040
20.66	37340	0.139
21.23	195700	0.730
22.05	93080	0.347
22.48	37540	0.140
22.79	17570	0.066
23.15	27190	0.101
23.89	133500	0.498
24.24	148900	0.555
25.72	87820	0.327
26.70	127500	0.475
27.36	132000	0.492
28.23	92620	0.345
29.41	3717000	13.861
30.57	4389000	16.367
31.95	517100	1.928
34.74	144500	0.539
37.43	1157000	4.315
39.20	1144000	4.266
42.04	318400	1.187
44.06	172900	0.645
46.64	309200	1.153
52.09	1758000	6.556
55.15	282700	1.054
57.76	1884000	7.026
60.74	1747000	6.515
66.85	1043000	3.890

JIL FACTOR: 1.0000 E+ 0

START = ~~9.187.20~~ 1.88

11.42

16.31

20.97
24.49
27.15

39.25

45.04

51.89

56.19

61.65

HP RUN # 207

ID: 111061

ESTD

OCT/08/85

TIME 19:08:59

RT	EXP RT	AREA	CAL #	AMT
11.42	11.40	289	7	0.597
20.97	21.23	180500	17	69.745
24.49	24.58	2675000	19	1057.31

TEMP1 400 60 158
TIME1 3.00
RATE 8.00
TEMP2 400 220
TIME2 45.00
INJ TEMP 400 215 215
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.10
ZERO 10.0
ATTN 2↑ 4
FID SGNL A
SLP SENS 0.15
AREA REJ 0
FLOW A 0.0 28.8
FLOW B 0.0 25.6

HP RUN # 207

OCT/88/85

TIME 19:08:59

ID: 111061

AREA %

RT	AREA	AREA %
0.10	50	0.001
1.07	110	0.002
1.20	487	0.008
1.88	11950	0.197
11.42	289	0.005
16.31	2101	0.035
20.97	180500	2.976
24.49	2675000	44.098
27.15	1917000	31.602
39.25	354300	5.841
45.04	104000	1.714
51.89	288400	4.754
56.19	168600	2.779
61.65	363300	5.989

DIL FACTOR: 1.0000 E+ 0

PURGEABLES - Method 624 (modification for GC/FID)

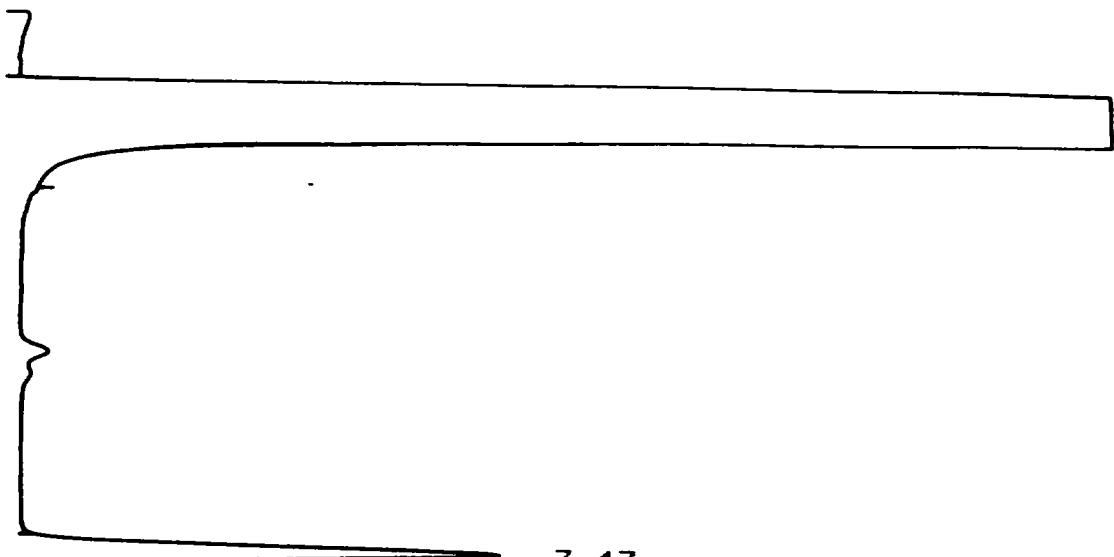
SAMPLE ID: 11.1. Scrap Samples STANDARD ID: 50 ppb A+B
 DATE: 10/9/85 QA/QC'd: _____

PARAMETER	RT	RESPONSE	DAILY STANDARD RESPONSE	CONC (ug/L)
CHLOROMETHANE		not	analyzed	
BROMOMETHANE		not	analyzed	
VINYL CHLORIDE		not	analyzed	
CHLOROETHANE		not	analyzed	
METHYLENE CHLORIDE	4.69	19530		
TRICHLOROFLUOROMETHANE		not	analyzed	
1,1-DICHLOROETHENE	6.87	30910		
1,1-DICHLOROETHANE	8.09	34370		
TRANS-1,2-DICHLOROETHENE	8.72	34380		
CHLOROFORM	9.38	12850		
1,2-DICHLOROETHANE	10.04	29490		
1,1,1-TRICHLOROETHANE	11.23	25030		
CARBON TETRACHLORIDE	11.61	9446		
BROMODICHLOROMETHANE	12.23	11230		
1,2-DICHLOROPROPANE	13.43	46880		
TRANS-1,3-DICHLOROPROPENE	13.72	17740		
TRICHLOROETHENE	14.74	27720		
BENZENE	14.65	129600		
*DIBROMOCHLOROMETHANE	?			
*1,1,2-TRICHLOROETHANE	14.99	78600		
*CIS-1,3-DICHLOROPROPENE				
2-CHLOROETHYL VINYL ETHER	—	not	analyzed	
BROMOFORM	17.04	1636		
#1,1,2,2-TETRACHLOROETHANE	19.31	32430		
#TETRACHLOROETHENE				
TOLUENE	21.04	130700		
CHLOROBENZENE	22.21	92900		
ETHYL BENZENE	24.29	130500		
1,3-DICHLOROBENZENE		not	analyzed	
1,2-DICHLOROBENZENE		not	analyzed	
1,4-DICHLOROBENZENE		not	analyzed	
*# #: coeluting compounds				
INTERNAL STANDARD RECOVERY				
BROMOCHLOROMETHANE	7.46	10450	99.3 %	

Column conditions: Carbopak B (60/80 mesh) coated with 1% SP-1000 in a 6' x 2 mm ID glass column with He carrier at 30 ml/min., at 60°C for 3 min., then programmed at 80°C per min. to 220°C and held.

checked
JGM

START



7.47

9.00

9.85

11.21 1,1,1-trichloroethane

12.21 Bromodichloromethane

14.56

16.07

19.70

21.00 toluene

21.69

23.55

STOP

HP RUN # 214
D:111061

OCT/09/85

TIME 16:55:41

STD

RT	EXP RT	AREA	CAL #	AMT
7.47	7.60	10520	2	100.960
9.00	8.88	433	4	0.638
11.21	11.40	122	7	0.252
12.21	12.39	124	9	0.561
14.56	14.42	267	12	0.492
19.70	20.06	278	16	0.426
21.00	21.23	656	17	0.253

VOL FACTOR: 1.0000 E+ 0

TEMP1	400	60	131
TIME1	3.00		
RATE	8.00		
TEMP2	400	210	
TIME2	45.00		
INJ TEMP	400	215	215
FID TEMP	400	250	250
TCD TEMP	400	250	250
AUX TEMP	400	200	200

CHT SPD	1.00	
ZERO	10.0	
ATTN 2↑	4	
FID SGNL	A	
SLP SENS	0.15	
AREA REJ	0	
FLOW A	0.0	28.9
FLOW B	0.0	27.3

P RUN # 214

OCT/09/85

TIME 16:55:41

D:111061

AREA %

RT	AREA	AREA %
1.59	396700	96.021
7.47	10520	0.546

11.21	122	0.030
12.21	124	0.030
14.56	267	0.065
16.07	2013	0.487
19.70	278	0.067
21.00	656	0.159
21.69	1376	0.333
23.55	312	0.076

DIL FACTOR: 1.0000 E+ 0

CALIB ESTD
X RTW: 5

RT	AMT
REF: 7 . 4 7	: 1 0 0
:	
DIL FACTOR: 1	

READY

Detection Limit = 1.98 ppm (ug/g)
 Dilution factor = 1980.2

PURGEABLES - Method 624 (modification for GC/FID)

5ml 10:1g
10ml x 10ml

SAMPLE ID: TIS Snap STA-02

STANDARD ID: 50 ppb A+B

DATE: 10/9/85

QA/QC'd:

PARAMETER	RT	RESPONSE	DAILY STANDARD RESPONSE	CONC (ug/L)
CHLOROMETHANE		not	analyzed	
BROMOMETHANE		not	analyzed	
VINYL CHLORIDE		not	analyzed	
CHLOROETHANE		not	analyzed	
METHYLENE CHLORIDE	4.71	2133		
TRICHLOROFLUOROMETHANE		not	analyzed	ND
1,1-DICHLOROETHENE				
1,1-DICHLOROETHANE				
TRANS-1,2-DICHLOROETHENE				
CHLOROFORM				
1,2-DICHLOROETHANE				
1,1,1-TRICHLOROETHANE	11.23	149		ND
CARBON TETRACHLORIDE				
BROMODICHLOROMETHANE	12.24	431		ND
1,2-DICHLOROPROPANE				1
TRANS-1,3-DICHLOROPROPENE				
TRICHLOROETHENE				
BENZENE				
*DIBROMOCHLOROMETHANE				
*1,1,2-TRICHLOROETHANE				
*CIS-1,3-DICHLOROPROPENE				
2-CHLOROETHYL ETHER		not	analyzed	
BROMOFORM				
#1,1,2,2-TETRACHLOROETHANE				
#TETRACHLOROETHENE				
TOLUENE	21.08	1077		ND
CHLOROBENZENE				
ETHYL BENZENE	24.32	2081	130500	.80
1,3-DICHLOROBENZENE		not	analyzed	1.58 mg/l
1,2-DICHLOROBENZENE		not	analyzed	
1,4-DICHLOROBENZENE		not	analyzed	
*# #: coeluting compounds				
ND - all these hits are less than or equal to the TIS INTERNAL STANDARD RECOVERY				
BROMOCHLOROMETHANE	3.46	11200	106.5 %	

Column conditions: Carbopak B (60/80 mesh) coated with 1% SP-1000 in a 6' x 2 mm ID glass column with He carrier at 30 ml/min., at 60°C for 3 min., then programmed at 80°C per min. to 220°C and held.

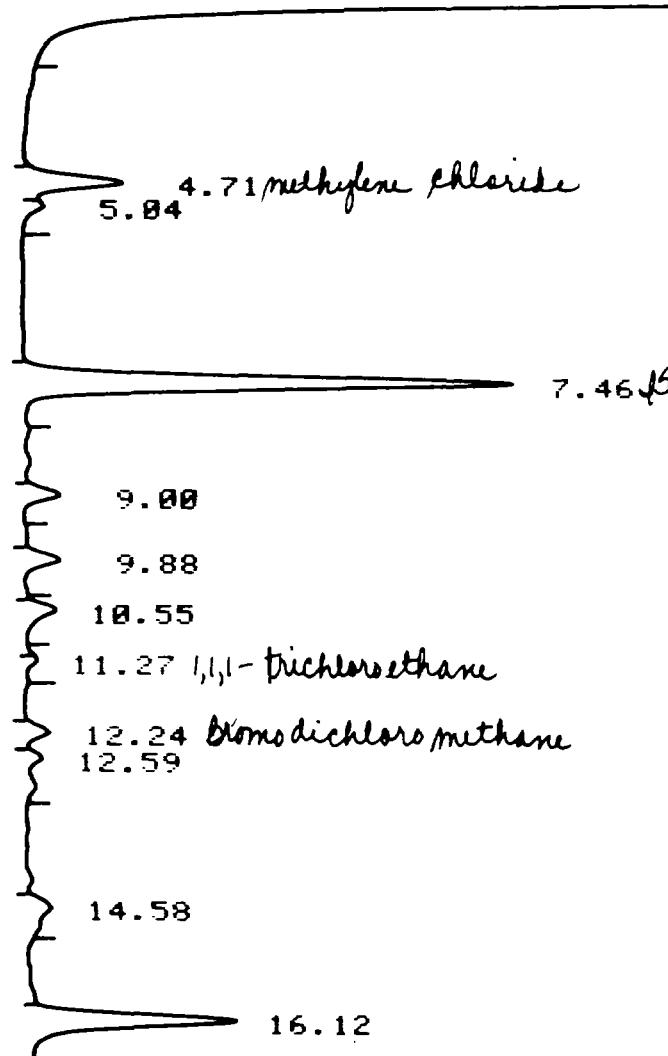
7857

12.23	11270	0.668
13.43	46800	2.781
13.72	17740	1.052
14.24	27720	1.644
14.65	129600	7.687
14.99	78600	4.662
16.03	33820	1.958
16.91	813	0.048
17.64	4636	0.275
18.98	284	0.017
19.86	32430	1.923
20.22	1068	0.063
20.71	869	0.052
21.04	130700	7.752
21.72	1821	0.108
22.21	92900	5.510
23.58	465	0.028
24.29	130500	7.740
27.51	349	0.021
29.10	2065	0.122
30.23	1672	0.099

DIL FACTOR: 1.0000 E+ 0

START

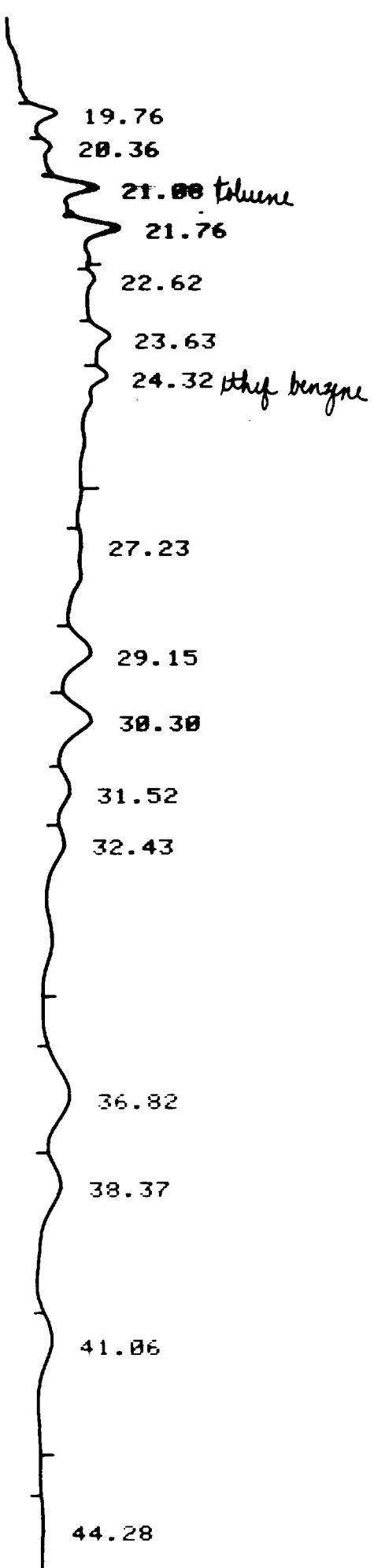
1.70



US Scrap Site

STA-02

$\frac{5\mu\text{l}}{10\text{ml}}$



49.23

54.78

58.07

62.04

HP RUN # 216
ID: 111061
ESTD

OCT/09/85

TIME 18:28:40

RT	EXP RT	AREA	CAL #	RMT
7.46	7.47	11200	IRI 1	106.464

IL FACTOR: 1.0000 E+ 0

TEMP1 400 60 166
TIME1 3.00

LINEL 70.00
INJ TEMP 400 215 215
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 200 200

CHT SPD 1.00
ZERO 10.0
ATTN 2↑ 4
FID SGNL A
SLP SENS 0.15
AREA REJ 0
FLOW A 0.0 28.9
FLOW B 0.0 24.6

HP RUN # 216

OCT/09/85

TIME 18:28:40

ID: 111061

AREA %

RT	AREA	AREA %
1.70	901600	91.247
4.71	2173	0.220
5.04	418	0.042
7.46	11200	1.134
9.00	680	0.069
9.88	727	0.074
10.55	671	0.068
11.27	149	0.015
12.24	431	0.044
12.59	553	0.056
14.58	687	0.070
16.12	4569	0.462
19.76	812	0.082
20.36	291	0.029
21.08	1077	0.109
21.76	1473	0.149
22.62	263	0.027
23.63	1344	0.136
24.32	2081	0.211
27.23	1111	0.112
29.15	2078	0.210
30.30	2491	0.252
31.52	1299	0.131
32.43	1653	0.167
36.82	4381	0.443
38.37	3054	0.309
41.06	1990	0.201
44.28	1083	0.110
49.23	8898	0.901
54.78	2467	0.250
58.07	13580	1.374
62.04	12800	1.295

DIL FACTOR: 1.0000 E+ 0

PURGEABLES - Method 624 (modification for GC/FID)

SAMPLE ID: _____

STANDARD ID: 50 PPB A+B

DATE: 10/10/85

QA/QC'd: _____

PARAMETER	RT	RESPONSE	DAILY STANDARD RESPONSE	CONC (ug/L)
CHLOROMETHANE		not	analyzed	
BROMOMETHANE		not	analyzed	
VINYL CHLORIDE		not	analyzed	
CHLOROETHANE		not	analyzed	
METHYLENE CHLORIDE	4.71	18070		
TRICHLOROFLUOROMETHANE	—	not	analyzed	
1,1-DICHLOROETHENE	6.88	28800		
1,1-DICHLOROETHANE	8.09	33310		
TRANS-1,2-DICHLOROETHENE	8.72	32960		
CHLOROFORM	9.38	12620		
1,2-DICHLOROETHANE	10.04	29830		
1,1,1-TRICHLOROETHANE	11.23	24270		
CARBON TETRACHLORIDE	11.60	9178		
BROMODICHLOROMETHANE	12.22	12100		
1,2-DICHLOROPROPANE	13.43	46920		
TRANS-1,3-DICHLOROPROPENE	13.72	18090		
TRICHLOROETHENE	14.24	27300		
BENZENE	14.65	125800		
*DIBROMOCHLOROMETHANE	14.99	80540		
*1,1,2-TRICHLOROETHANE	—	—		
*CIS-1,3-DICHLOROPROPENE	—	—		
2-CHLOROETHYL VINYL ETHER	—	not	analyzed	
BROMOFORM	17.64	4969		
#1,1,2,2-TETRACHLOROETHANE	19.86	34180		
*TETRACHLOROETHENE				
TOLUENE	21.03	129500		
CHLOROBENZENE	22.20	93620		
ETHYL BENZENE	24.26	129300		
1,3-DICHLOROBENZENE		hot	analyzed	
1,2-DICHLOROBENZENE		not	analyzed	
1,4-DICHLOROBENZENE		not	analyzed	

*##: coeluting compounds

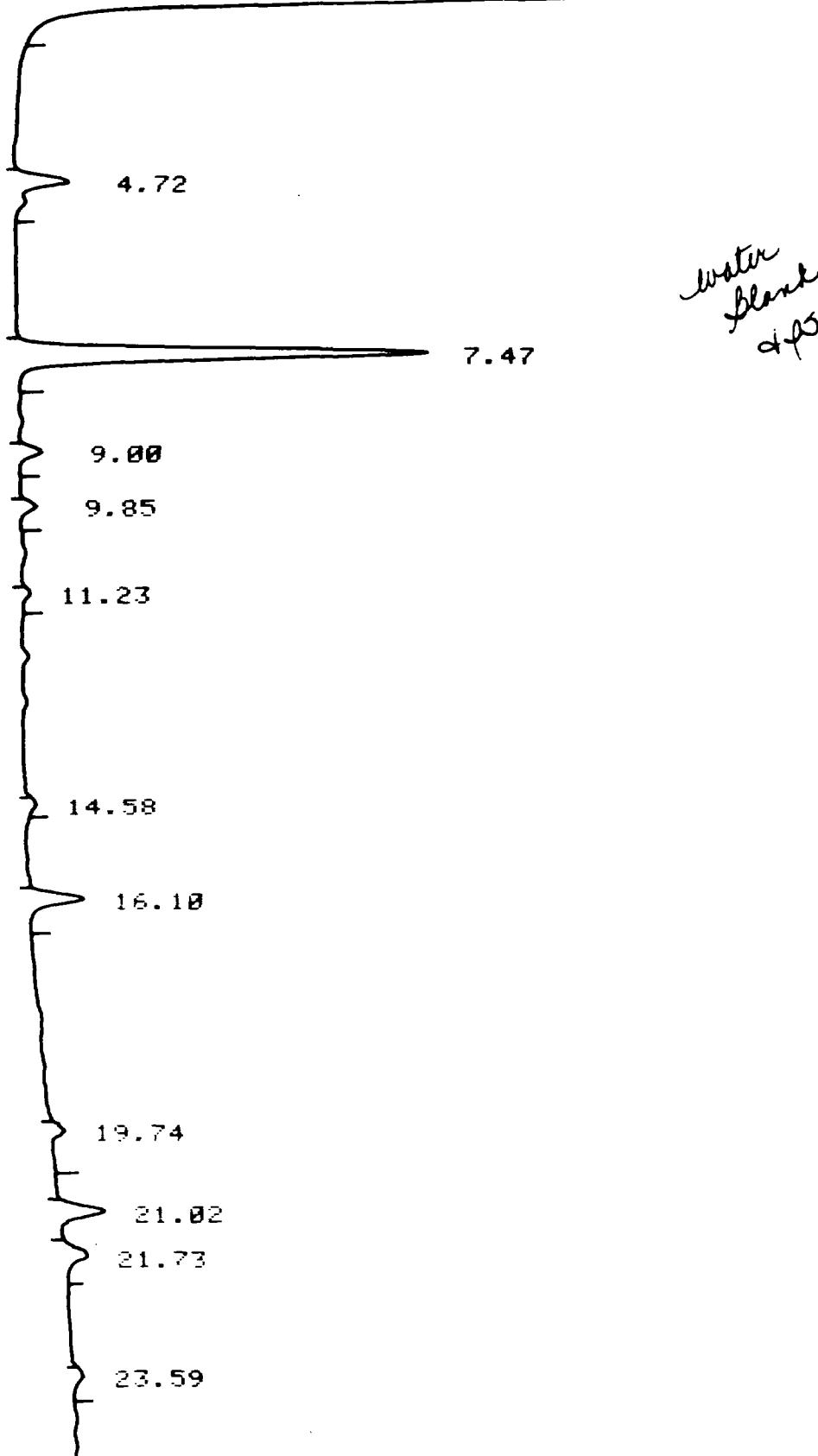
INTERNAL STANDARD RECOVERY

BROMOCHLOROMETHANE	7.47	11020	101.6 %	
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Column conditions: Carbopak B (60/80 mesh) coated with 1% SP-1000 in a 6' x 2 mm ID glass column with He carrier at 30 ml/min., at 60°C for 3 min., then programmed at 80°C per min. to 220°C and held.

TEMP1 400 60 61
SLP SENS : 1 2
SLP SENS : 1 5 2
START 0.13

1.61



STOP

HP RUN # 219
ID: 111061
ESTD

OCT/10/85

TIME 09:03:06

RT	EXP RT	AREA	CAL #	AMT
7.47	7.44	10900	(R) 1	100.461

DIL FACTOR: 1.0000 E+ 0

TEMP1	400	60	164
TIME1		3.00	
RATE		8.00	
TEMP2	400	210	
TIME2		15.00	
INJ TEMP	400	215	215
FID TEMP	400	250	250
TCD TEMP	400	250	250
AUX TEMP	400	200	200
CHT SPD		1.00	
ZERO		10.0	
ATTN 2↑		4	
FID SGNL	A		
SLP SENS		0.15	
AREA REJ		0	
FLOW A	0.0	29.0	
FLOW B	0.0	25.2	

HP RUN # 219
ID: 111061
AREA %

OCT/10/85

TIME 09:03:06

RT	AREA	AREA %
0.13	75	0.017
1.61	433900	96.094
4.72	1583	0.351
7.47	10900	2.414
9.00	491	0.109
9.85	362	0.080
11.23	114	0.025
14.58	224	0.050
16.10	1342	0.297
19.74	317	0.070
21.02	1137	0.252
21.73	795	0.176
23.59	299	0.066

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 73
 TEMP1 400 60 64
 TEMP1 400 60 60

50ppm^b

START

1.58

ATTN 2↑ 6 2

4.71 methylene chloride

6.88 1,1-dichloroethane

7.47^b

8.89 ~~1,1-dichloroethane~~ 1,1-dichloroethane

8.72 ~~trans-1,2-dichloroethene~~ trans-1,2-dichloroethene

9.38 ~~chloroform~~ chloroform

10.04 ~~1,2-dichloroethane~~ 1,2-dichloroethane

10.66

11.23 ~~1,1,1-trichloroethane~~ 1,1,1-trichloroethane

11.60 CCl₄

12.22 Bromodichloromethane

13.72

14.24 trichloroethylene

benzene

14.65

14.99 *3 coeluters

16.04

16.92

17.64 Bromoform

18.98

19.86 #2 coeluters

20.67

toluene

21.03

21.73

chlorobenzene

22.28

23.56

ethyl benzene

24.26

RTN 2↑^b
lt

T₂ 6.86
STOP

HP RUN # 220
ID: 111061
STD

OCT/10/85

TIME 09:48:18

RT	EXP RT	AREA	CAL #	AMT
7.47	7.44	11020	(R) 1	101.567

DTL FACTOR: 1.0000 E+ 0

TEMP1	400	60	164
TIME1	3.00		
RATE	8.00		
TEMP2	400	210	
TIME2	8.00		
INJ TEMP	400	215	215
FID TEMP	400	250	250
TCD TEMP	400	250	250
AUX TEMP	400	200	200

CHT SPD	1.00	
ZERO	10.0	
ATTN 2↑	6	
FID SGNL	A	
SLP SENS	0.15	
AREA REJ	0	
FLOW A	0.0	29.0
FLOW B	0.0	25.3

HP RUN # 220
ID: 111061
AREA %

OCT/10/85

TIME 09:48:18

RT	AREA	AREA %
1.58	740200	43.788
4.71	18070	1.069
6.88	28800	1.704
7.47	11020	0.652
8.09	33310	1.971
8.72	32960	1.950
9.38	12620	0.747
10.04	29830	1.765
10.66	960	0.057
11.23	24270	1.436
11.60	9178	0.543
12.22	12100	0.716
13.43	46920	2.776
13.72	18090	1.070
14.24	27300	1.615
14.65	125800	7.442
14.99	80540	4.765
16.04	40190	2.378
16.92	1066	0.063
17.64	4969	0.294
18.98	463	0.027
19.86	34180	2.022
20.67	1421	0.084
21.03	129500	7.661

20.00
24.26

1070
129300

0.071
7.649

DIL FACTOR: 1.0000 E+ 0

CALIB ESTD
% RTW: 4

RT	AMT
REF: 4 . 7 1	: 5 0
: 6 . 8 8	: 5 0
: 7 . 4 7	: 1 0 0
: 9	

DIL FACTOR: 1

READY

CALIB ESTD
% RTW: 4

RT	AMT
REF: 4 . 7 1	: 5 0
: 6 . 8 8	: 5 0
: 7 . 4 0	: 5 0
: 8 . 7 9	: 5 0
: 9 . 2 8	: 5 0
: 0 . 0 2	: 5 0
: 1 . 1 1	: 5 0
: 2 . 1 1	: 5 0
: 3 . 1 1	: 5 0
: 4 . 1 1	: 5 0
: 5 . 1 1	: 5 0
: 6 . 1 1	: 5 0
: 7 . 1 1	: 5 0
: 8 . 1 1	: 5 0
: 9 . 1 1	: 5 0
: 0 . 0 1	: 5 0
: 1 . 0 1	: 5 0
: 2 . 0 1	: 5 0
: 3 . 0 1	: 5 0
: 4 . 0 1	: 5 0
: 5 . 0 1	: 5 0
: 6 . 0 1	: 5 0
: 7 . 0 1	: 5 0
: 8 . 0 1	: 5 0
: 9 . 0 1	: 5 0
: 0 . 1 1	: 5 0
: 1 . 1 1	: 5 0
: 2 . 1 1	: 5 0
: 3 . 1 1	: 5 0
: 4 . 1 1	: 5 0
: 5 . 1 1	: 5 0
: 6 . 1 1	: 5 0
: 7 . 1 1	: 5 0
: 8 . 1 1	: 5 0
: 9 . 1 1	: 5 0
: 0 . 2 2	: 5 0
: 1 . 2 2	: 5 0
: 2 . 2 2	: 5 0
: 3 . 2 2	: 5 0
: 4 . 2 2	: 5 0
: 5 . 2 2	: 5 0
: 6 . 2 2	: 5 0
: 7 . 2 2	: 5 0
: 8 . 2 2	: 5 0
: 9 . 2 2	: 5 0
: 0 . 3 3	: 5 0
: 1 . 3 3	: 5 0
: 2 . 3 3	: 5 0
: 3 . 3 3	: 5 0
: 4 . 3 3	: 5 0
: 5 . 3 3	: 5 0
: 6 . 3 3	: 5 0
: 7 . 3 3	: 5 0
: 8 . 3 3	: 5 0
: 9 . 3 3	: 5 0
: 0 . 4 4	: 5 0
: 1 . 4 4	: 5 0
: 2 . 4 4	: 5 0
: 3 . 4 4	: 5 0
: 4 . 4 4	: 5 0
: 5 . 4 4	: 5 0
: 6 . 4 4	: 5 0
: 7 . 4 4	: 5 0
: 8 . 4 4	: 5 0
: 9 . 4 4	: 5 0
: 0 . 5 5	: 5 0
: 1 . 5 5	: 5 0
: 2 . 5 5	: 5 0
: 3 . 5 5	: 5 0
: 4 . 5 5	: 5 0
: 5 . 5 5	: 5 0
: 6 . 5 5	: 5 0
: 7 . 5 5	: 5 0
: 8 . 5 5	: 5 0
: 9 . 5 5	: 5 0
: 0 . 6 6	: 5 0
: 1 . 6 6	: 5 0
: 2 . 6 6	: 5 0
: 3 . 6 6	: 5 0
: 4 . 6 6	: 5 0
: 5 . 6 6	: 5 0
: 6 . 6 6	: 5 0
: 7 . 6 6	: 5 0
: 8 . 6 6	: 5 0
: 9 . 6 6	: 5 0
: 0 . 7 7	: 5 0
: 1 . 7 7	: 5 0
: 2 . 7 7	: 5 0
: 3 . 7 7	: 5 0
: 4 . 7 7	: 5 0
: 5 . 7 7	: 5 0
: 6 . 7 7	: 5 0
: 7 . 7 7	: 5 0
: 8 . 7 7	: 5 0
: 9 . 7 7	: 5 0
: 0 . 8 8	: 5 0
: 1 . 8 8	: 5 0
: 2 . 8 8	: 5 0
: 3 . 8 8	: 5 0
: 4 . 8 8	: 5 0
: 5 . 8 8	: 5 0
: 6 . 8 8	: 5 0
: 7 . 8 8	: 5 0
: 8 . 8 8	: 5 0
: 9 . 8 8	: 5 0
: 0 . 9 9	: 5 0
: 1 . 9 9	: 5 0
: 2 . 9 9	: 5 0
: 3 . 9 9	: 5 0
: 4 . 9 9	: 5 0
: 5 . 9 9	: 5 0
: 6 . 9 9	: 5 0
: 7 . 9 9	: 5 0
: 8 . 9 9	: 5 0
: 9 . 9 9	: 5 0
: 0 . 0 0	: 5 0
: 1 . 0 0	: 5 0
: 2 . 0 0	: 5 0
: 3 . 0 0	: 5 0
: 4 . 0 0	: 5 0
: 5 . 0 0	: 5 0
: 6 . 0 0	: 5 0
: 7 . 0 0	: 5 0
: 8 . 0 0	: 5 0
: 9 . 0 0	: 5 0
: 0 . 1 1	: 5 0
: 1 . 1 1	: 5 0
: 2 . 1 1	: 5 0
: 3 . 1 1	: 5 0
: 4 . 1 1	: 5 0
: 5 . 1 1	: 5 0
: 6 . 1 1	: 5 0
: 7 . 1 1	: 5 0
: 8 . 1 1	: 5 0
: 9 . 1 1	: 5 0
: 0 . 2 2	: 5 0
: 1 . 2 2	: 5 0
: 2 . 2 2	: 5 0
: 3 . 2 2	: 5 0
: 4 . 2 2	: 5 0
: 5 . 2 2	: 5 0
: 6 . 2 2	: 5 0
: 7 . 2 2	: 5 0
: 8 . 2 2	: 5 0
: 9 . 2 2	: 5 0
: 0 . 3 3	: 5 0
: 1 . 3 3	: 5 0
: 2 . 3 3	: 5 0
: 3 . 3 3	: 5 0
: 4 . 3 3	: 5 0
: 5 . 3 3	: 5 0
: 6 . 3 3	: 5 0
: 7 . 3 3	: 5 0
: 8 . 3 3	: 5 0
: 9 . 3 3	: 5 0
: 0 . 4 4	: 5 0
: 1 . 4 4	: 5 0
: 2 . 4 4	: 5 0
: 3 . 4 4	: 5 0
: 4 . 4 4	: 5 0
: 5 . 4 4	: 5 0
: 6 . 4 4	: 5 0
: 7 . 4 4	: 5 0
: 8 . 4 4	: 5 0
: 9 . 4 4	: 5 0
: 0 . 5 5	: 5 0
: 1 . 5 5	: 5 0
: 2 . 5 5	: 5 0
: 3 . 5 5	: 5 0
: 4 . 5 5	: 5 0
: 5 . 5 5	: 5 0
: 6 . 5 5	: 5 0
: 7 . 5 5	: 5 0
: 8 . 5 5	: 5 0
: 9 . 5 5	: 5 0
: 0 . 6 6	: 5 0
: 1 . 6 6	: 5 0
: 2 . 6 6	: 5 0
: 3 . 6 6	: 5 0
: 4 . 6 6	: 5 0
: 5 . 6 6	: 5 0
: 6 . 6 6	: 5 0
: 7 . 6 6	: 5 0
: 8 . 6 6	: 5 0
: 9 . 6 6	: 5 0
: 0 . 7 7	: 5 0
: 1 . 7 7	: 5 0
: 2 . 7 7	: 5 0
: 3 . 7 7	: 5 0
: 4 . 7 7	: 5 0
: 5 . 7 7	: 5 0
: 6 . 7 7	: 5 0
: 7 . 7 7	: 5 0
: 8 . 7 7	: 5 0
: 9 . 7 7	: 5 0
: 0 . 8 8	: 5 0
: 1 . 8 8	: 5 0
: 2 . 8 8	: 5 0
: 3 . 8 8	: 5 0
: 4 . 8 8	: 5 0
: 5 . 8 8	: 5 0
: 6 . 8 8	: 5 0
: 7 . 8 8	: 5 0
: 8 . 8 8	: 5 0
: 9 . 8 8	: 5 0
: 0 . 9 9	: 5 0
: 1 . 9 9	: 5 0
: 2 . 9 9	: 5 0
: 3 . 9 9	: 5 0
: 4 . 9 9	: 5 0
: 5 . 9 9	: 5 0
: 6 . 9 9	: 5 0
: 7 . 9 9	: 5 0
: 8 . 9 9	: 5 0
: 9 . 9 9	: 5 0

DIL FACTOR: 1 . 0

OPY

Dilution Factor = 198.0
Detection limit = 198 ng/g

US SCRAP SITE

PURGEABLES - Method 624 (modification for GC/FID)

5ml/10ml

SAMPLE ID: STA-02

STANDARD ID: 50 ppb A+B+TS

DATE: 10/10/85

QA/QC'd:

Blanks contain ~ 4.4 ppb Methylene Chloride

PARAMETER	RT	RESPONSE	DAILY STANDARD RESPONSE	CONC (ug/L)
CHLOROMETHANE		not	analyzed	
BROMOMETHANE		not	analyzed	
VINYL CHLORIDE		not	analyzed	
CHLOROETHANE		not	analyzed	
METHYLENE CHLORIDE	4.71	7544	18070	3.26
TRICHLOROFLUOROMETHANE	—	not	analyzed	2.81
1,1-DICHLOROETHENE	6.81	248	28800	16.47
1,1-DICHLOROETHANE				0.85 ug
TRANS-1,2-DICHLOROETHENE				2.24
CHLOROFORM				
1,2-DICHLOROETHANE				
1,1,1-TRICHLOROETHANE	11.24	655	24270	1.55
CARBON TETRACHLORIDE				
BROMODICHLOROMETHANE	12.24	902	12100	ND 3.73
1,2-DICHLOROPROPANE				
TRANS-1,3-DICHLOROPROPENE				
TRICHLOROETHENE	14.21	393	27300	ND 7.2
BENZENE	14.62	3343	125800	ND ND
*DIBROMOCHLOROMETHANE				20.000
*1,1,2-TRICHLOROETHANE				
*CIS-1,3-DICHLOROPROPENE				
2-CHLOROETHYL VINYL ETHER		not	analyzed	
BROMOFORM				
#1,1,2,2-TETRACHLOROETHANE				
#TETRACHLOROETHENE				
TOLUENE	21.04	12530	129500	ND 3.62
CHLOROBENZENE				
ETHYL BENZENE	24.27	12680	129300 (dil= 4.90 (2.5))	ND ND
1,3-DICHLOROBENZENE		not (20) ptnt	analyzed 560	ND ND
1,2-DICHLOROBENZENE		not	analyzed	
1,4-DICHLOROBENZENE		not	analyzed	

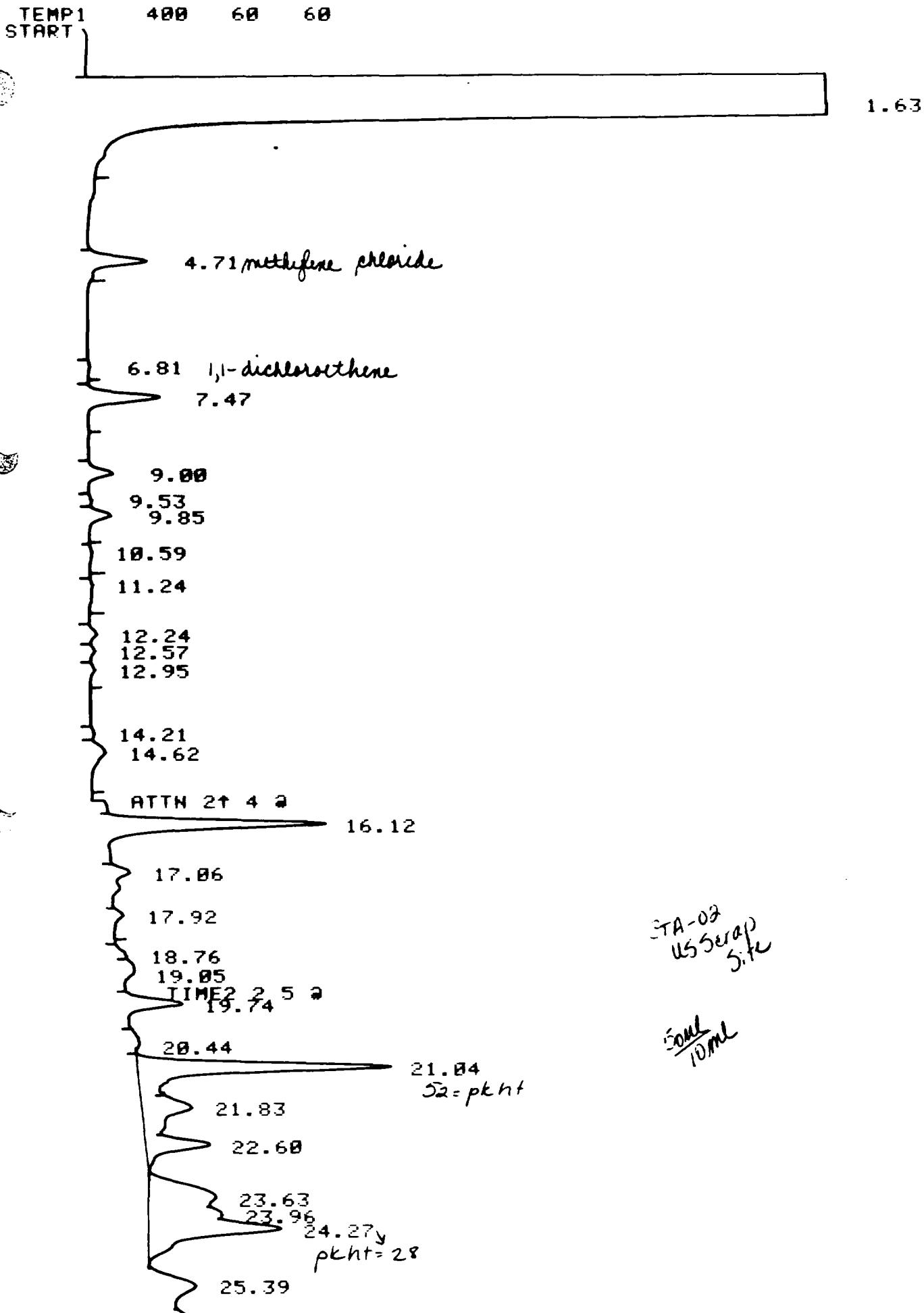
*#: coeluting compounds

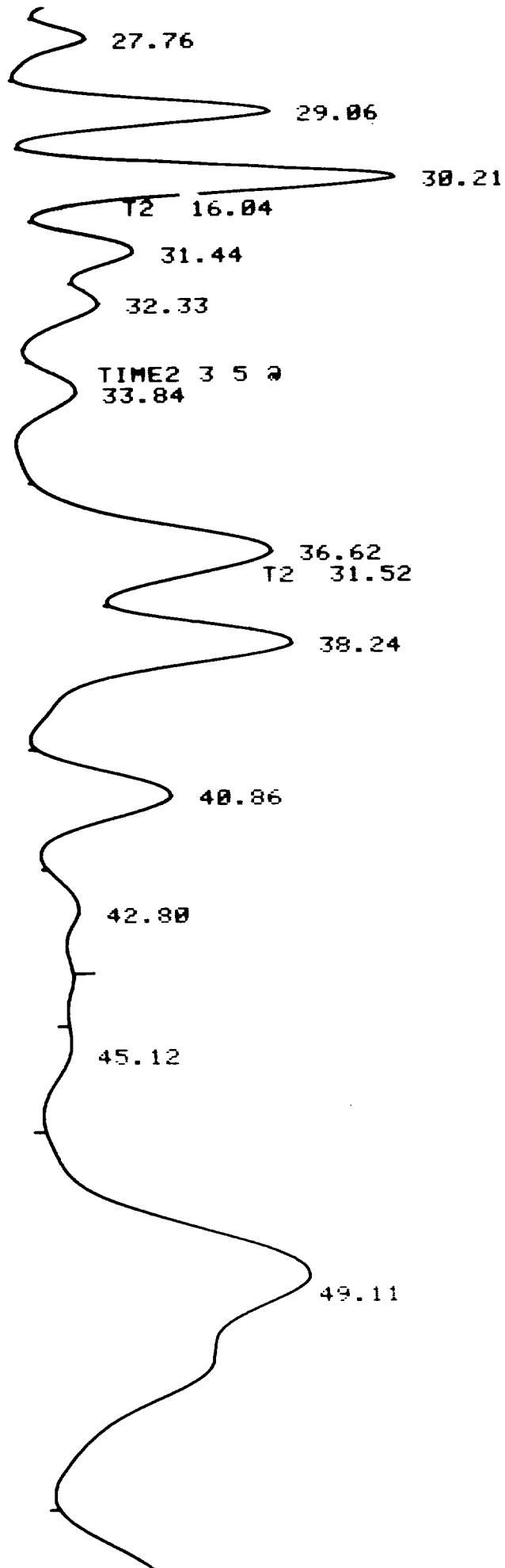
INTERNAL STANDARD RECOVERY

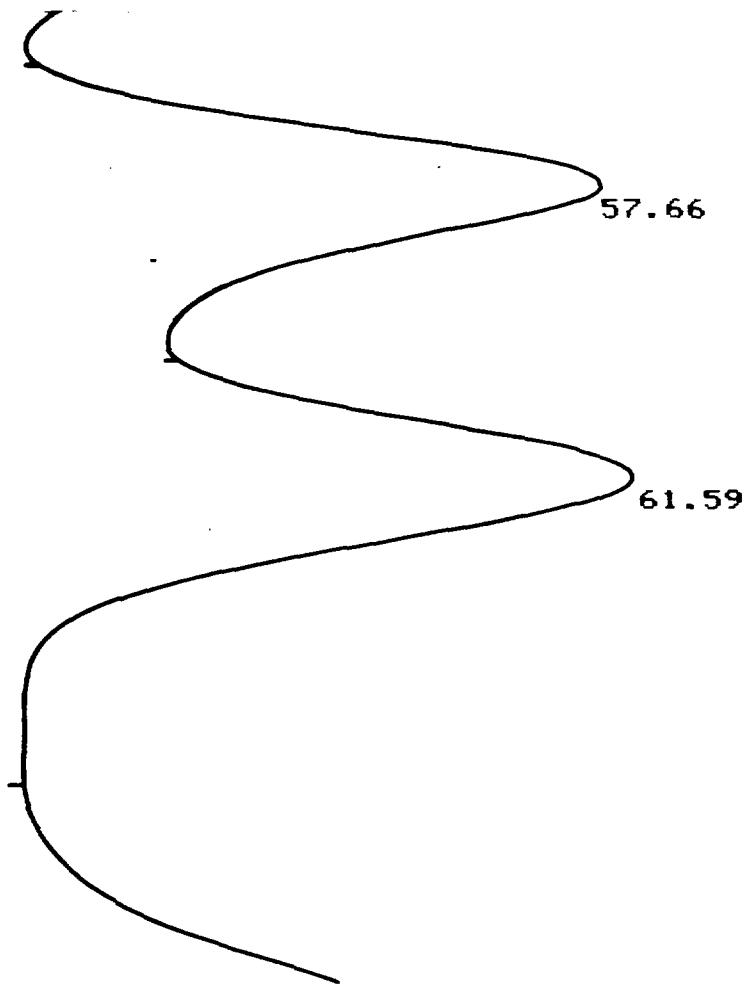
BROMOCHLOROMETHANE	7.47	9826	90.1 %
--------------------	------	------	--------

Column conditions: Carbopak B (60/80 mesh) coated with 1% SP-1000 in a 6' x 2 mm ID glass column with He carrier at 30 ml/min., at 60°C for 3 min., then programmed at 80°C per min. to 220°C and held.

Check:
XAB







P RUN # 221
ID: 111061
ESTD

OCT/10/85

TIME 10:25:47

RT	EXP RT	AREA	CAL #	AMT
4.71	4.71	7544	(R) 1	20.874
6.81	6.88	248	2	0.431
7.47	7.47	9826	3	89.165
9.53	9.38	344	6	1.363
9.85	10.04	2985	7	5.003
11.24	11.23	655	8	1.349
12.24	12.22	902	10	3.727
14.21	14.24	393	13	0.720
14.62	14.65	3343	14	1.329
17.92	17.64	393	16	3.955
19.74	19.86	3017	17	4.413
21.04	21.03	12530	18	4.938
21.83	22.20	7994	19	4.269
24.27	24.26	12680	20	4.903

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 106
TIME1 3.00
RATE 8.00
TEMP2 400 210
TIME2 35.00
INJ TEMP 400 215 215
FID TEMP 400 250 250
TCB TEMP 400 250 250

CHT SPD 1.00
 ZERO 10.0
 ATTN 2↑ 4
 FID SGNL A
 SLP SENS 0.15
 AREA REJ 0
 FLOW A 0.0 29.0
 FLOW B 0.0 30.0

HP RUN # 221

OCT/10/85

TIME 10:25:47

ID: 111061

AREA %

RT	AREA	AREA %
1.63	3060000	79.655
4.71	7544	0.196
6.81	248	0.006
7.47	9826	0.256
9.00	3181	0.083
9.53	344	0.009
9.85	2985	0.078
10.59	402	0.010
11.24	655	0.017
12.24	902	0.023
12.57	626	0.016
12.95	758	0.020
14.21	393	0.010
14.62	3343	0.087
16.12	7442	0.194
17.06	1147	0.030
17.92	393	0.010
18.76	268	0.007
19.05	1257	0.033
19.74	3017	0.079
20.44	2025	0.053
21.04	12530	0.326
21.83	7994	0.208
22.60	6444	0.168
23.63	7940	0.207
23.96	4377	0.114
24.27	12680	0.330
25.39	8030	0.209
26.29	10630	0.277
27.00	11440	0.298
27.76	13340	0.347
29.06	28040	0.730
30.21	39590	1.031
31.44	20710	0.539
32.33	17820	0.464
33.84	16320	0.425
36.62	53010	1.380
38.24	41770	1.087
40.86	18060	0.470
42.80	2513	0.065
45.12	1236	0.032
49.11	100200	2.608
54.35	22140	0.576
57.66	129300	3.366
61.59	148700	3.871

DIL FACTOR: 1.0000 E+ 0

START 7 0.10

for water

TEMP1 400 60 150
TEMP1 400 60 109
TEMP1 400 60 60
TIME2 35.00
TEMP2 400 210
START

0.73

1.56

4.69

7.46

8.98

9.85

16.10

17.93

19.74

21.02

21.70

23.55

23.83

match time

STOP T₂ 28.53

HP RUN # 226

ID: 111061

ESTD

OCT/10/85

TIME 15:29:42

RT	EXP RT	AREA	CAL #	AMT
4.69	4.71	957	(R) 1	2.648
7.46	7.43	10650	3	96.643
9.85	9.99	301	7	0.505
19.74	19.77	295	17	0.432
21.02	20.94	1202	18	0.464
21.70	22.10	1124	19	0.600

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 133
ESCAPE

Dilution = 2000 x

US SCRAP SITE

PURGEABLES - Method 624 (modification for GC/FID)

10g/10ml

SAMPLE ID: Sta 03 - 5mL/10ml

STANDARD ID: 50 ppb ± 25

DATE: 10/11/85

QA/QC'd:

Blanks contain ~ 4.4 ppb 4-Methylene Chloride

PARAMETER	RT	RESPONSE	DAILY STANDARD RESPONSE	CONC (ug/L)
CHLOROMETHANE		not	analyzed	
BROMOMETHANE		not	analyzed	
VINYL CHLORIDE		not	analyzed	
CHLOROETHANE		not	analyzed	
METHYLENE CHLORIDE	4.69	954	18070	2.64 ND
TRICHLOROFUOROMETHANE		not	analyzed	
1,1-DICHLOROETHENE				
1,1-DICHLOROETHANE				
TRANS-1,2-DICHLOROETHENE				
CHLOROFORM				
1,2-DICHLOROETHANE				
1,1,1-TRICHLOROETHANE				
CARBON TETRACHLORIDE				
BROMODICHLOROMETHANE	12.20	1047	12100	4.53 9.06ug/l
1,2-DICHLOROPROPANE				
TRANS-1,3-DICHLOROPROPENE				
TRICHLOROETHENE				
BENZENE				
*DIBROMOCHLOROMETHANE				
*1,1,2-TRICHLOROETHANE				
*CIS-1,3-DICHLOROPROPENE				
2-CHLOROETHYL VINYL ETHER		not	analyzed	
BROMOFORM	17.68	560	4969	5.63 11.3ug/l
#1,1,2,2-TETRACHLOROETHANE				
#TETRACHLOROETHENE				
TOLUENE	21.00	5070	129500	1.96 3.9ug/l
CHLOROBENZENE				
ETHYL BENZENE				
1,3-DICHLOROBENZENE		not	analyzed	
1,2-DICHLOROBENZENE		not	analyzed	
1,4-DICHLOROBENZENE		not	analyzed	
*#: coeluting compounds				
INTERNAL STANDARD RECOVERY				
BROMOCHLOROMETHANE	7.45	10700	97.1 %	

Column conditions: Carbopak B (60/80 mesh) coated with 1% SP-1000 in a 6' x 2 mm ID glass column with He carrier at 30 ml/min., at 60°C for 3 min., then programmed at 80°C per min. to 220°C and held.

checked
10/12/85

START

0.73

1.56

4.69

7.45

8.97

9.83

12.20 Bromo dichloromethane

12.91

14.16
14.49

16.08

16.75
17.05

17.68 Bromoform

18.69

19.06

19.73

21.00 Toluene

21.81

22.89

23.58

24.53

25.20

1/4 drop size
ste 03
 $\frac{5\text{ml}}{10\text{ml}}$

28.82

STOP

STR-03

HP RUN # 227
ID: 111061
ESTD

OCT/10/85

TIME 16:10:14

RT	EXP RT	AREA	CAL #	AMT
4.69	4.71	954	(R) 1	2.640
7.45	7.43	10700	3	97.096
9.83	9.99	706	7	1.183
12.20	12.16	1097	10	4.533
14.16	14.17	512	13	0.938
14.49	14.58	1055	14	0.419
) 17.68	17.56	560	16	5.635
19.73	19.77	633	17	0.926
21.00	20.94	5070	18	1.958
21.81	22.10	5784	19	3.089
24.53	24.15	644	20	0.249

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 115
TIME1 3.00
RATE 8.00
TEMP2 400 210
TIME2 35.00
INJ TEMP 400 215 215
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 200 200

CHT SPD 1.00
ZERO 10.0
ATTN 2† 4
FID SGNL A
SLP SENS 0.15
APER DF 1

HP RUN # 227

ID: 111061

AREA %

OCT/10/85

TIME 16:10:14

RT	AREA	AREA %
0.73	45	0.005
1.56	825200	93.618
4.69	954	0.108
7.45	10700	1.214
8.97	1286	0.146
9.83	706	0.080
12.20	1097	0.124
12.91	206	0.023
14.16	512	0.058
14.49	1055	0.120
16.08	3414	0.387
16.75	1128	0.128
17.05	3092	0.351
17.68	560	0.064
18.69	116	0.013
19.06	890	0.101
19.73	633	0.072
21.00	5070	0.575
21.81	5784	0.656
22.89	1813	0.206
23.58	2766	0.314
24.53	644	0.073
25.20	355	0.040
26.42	6284	0.713
28.82	7142	0.810

SIL FACTOR: 1.0000 E+ 0

START

0.73

START

5ml / 10ml

1.73

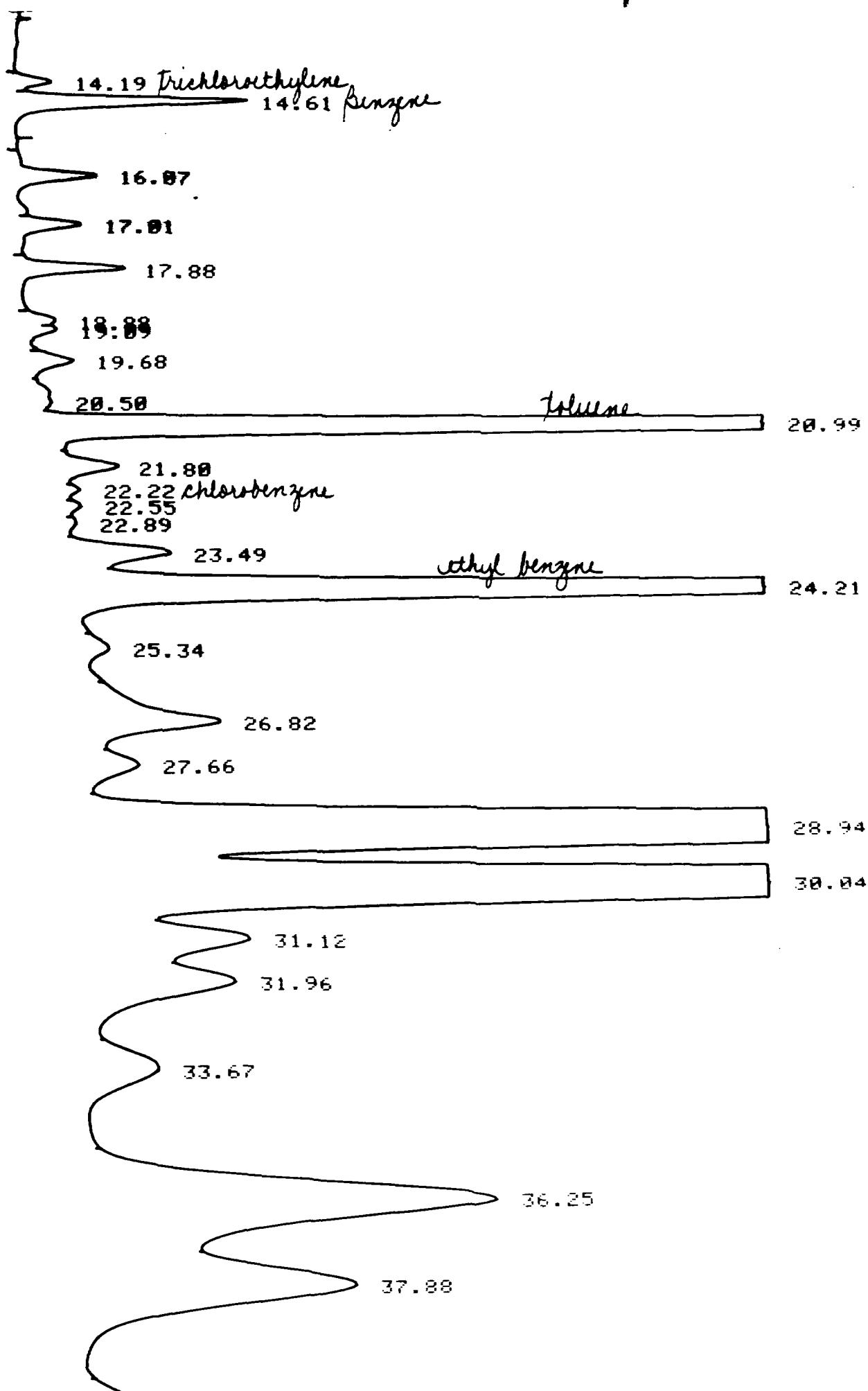
4.68 methylene chloride
5.01

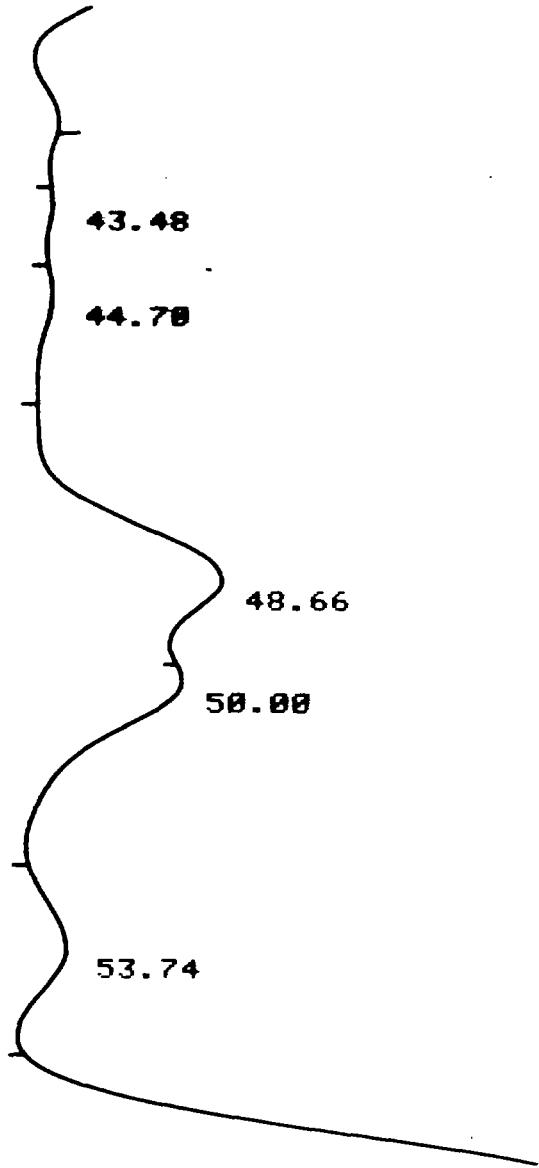
forget the
↑↑

8.95

9.82

11.18 trichloroethane





CHIP RUN # 228
ID: 111061
ESTD

OCT/10/85 TIME 17:00:47

RT	EXP RT	AREA	CAL #	RMT
4.68	4.71	1368	(R)	3.785
9.82	9.97	357	1	0.598
11.18	11.15	1590	0	3.276
12.16	12.14	453	1	1.872
14.19	14.14	1111	0	2.035
14.61	14.55	9006	14	3.182
19.68	19.73	3572	17	5.225
20.99	20.89	109800	18	42.394
22.22	22.05	3990	19	1.597
24.21	24.10	97240	20	37.603

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 118
TIME1 3.00
RATE 0.00
TEMP2 400 210
TIME2 35.00
THT TEMP 400 215 0.05

TCD TEMP 400 200 200
AUX TEMP 400 200 200

CHT SPD 1.00
ZERO 10.0
ATTN 2↑ 4
FID SGNL A
SLP SENS 0.15
AREA REJ 0
FLOW A 0.0 29.2
FLOW B 0.0 28.9

HP RUN # 228

OCT/10/85

TIME 17:00:47

ID: 111061

AREA %

RT	AREA	AREA %
0.73	24	0.002
1.73	364200	24.861
4.68	1368	0.093
5.81	1185	0.081
8.95	190	0.013
9.82	357	0.024
11.18	1590	0.109
12.16	453	0.031
12.51	1079	0.074
14.19	1111	0.076
14.61	8006	0.546
16.07	2833	0.193
17.01	2898	0.198
17.88	4109	0.280
18.88	1810	0.124
19.09	1481	0.101
19.68	3572	0.244
20.50	2973	0.203
20.99	109800	7.495
21.80	6996	0.478
22.22	2990	0.204
22.55	3157	0.215
22.89	3217	0.220
23.49	1113	0.801
24.21	97240	6.638
25.34	10690	0.730
26.82	30560	2.086
ESCAPE		

PURGEABLES - Method 624 (modification for GC/FID)

SAMPLE ID: _____

STANDARD ID: 50 ppb A+B Std

DATE: 10/11/85

QA/QC'd: _____

PARAMETER	RT	RESPONSE	DAILY STANDARD RESPONSE	CONC (ug/L)
CHLOROMETHANE		not	analyzed	
BROMOMETHANE		not	analyzed	
VINYL CHLORIDE		not	analyzed	
CHLOROETHANE		not	analyzed	
METHYLENE CHLORIDE	4.71	17390		
TRICHLOROFLUOROMETHANE		not	analyzed	50
1,1-DICHLOROETHENE	6.86	25500		
1,1-DICHLOROETHANE	8.08	32400		
TRANS-1,2-DICHLOROETHENE	8.71	31360		
CHLOROFORM	9.36	12570		
1,2-DICHLOROETHANE	10.02	31090		
1,1,1-TRICHLOROETHANE	11.21	23540		
CARBON TETRACHLORIDE	11.58	8942		
BROMODICHLOROMETHANE	12.20	11460		
1,2-DICHLOROPROPANE	13.41	46620		
TRANS-1,3-DICHLOROPROPENE	13.70	18450		
TRICHLOROETHENE	14.22	210560		
BENZENE	14.63	122900		
*DIBROMOCHLOROMETHANE	149.7	86260		
*1,1,2-TRICHLOROETHANE	=	=		
*CIS-1,3-DICHLOROPROPENE	=	=		
2-CHLOROETHYL VINYL ETHER		not	analyzed	
BROMOFORM	17.60	6456		
#1,1,2,2-TETRACHLOROETHANE	19.83	35150		
#TETRACHLOROETHENE	=	+		
TOLUENE	21.00	128400		
CHLOROBENZENE	22.18	91720		
ETHYL BENZENE	23.23	126900		
1,3-DICHLOROBENZENE		not	analyzed	
1,2-DICHLOROBENZENE		not	analyzed	
1,4-DICHLOROBENZENE		not	analyzed	
*#&: coeluting compounds				
INTERNAL STANDARD RECOVERY				
BROMOCHLOROMETHANE	7.45	11180	100 %	

Column conditions: Carbopak B (60/80 mesh) coated with 1% SP-1000 in a 6' x 2 mm ID glass column with He carrier at 30 ml/min., at 60°C for 3 min., then programmed at 80°C per min. to 220°C and held.

START

21 400 60 60

toppabs + p

1.58

ATTN 2±.6 ±

4.71 methylene chloride

6.86 1,1-dichloroethene

7.45 ±5.

8.08 1,1-dichloroethane

8.71 trans-1,2-dichloroethene

9.36 chloroform

10.02 1,2-dichloroethane

10.63

11.21 1,1,1-trichloroethane

11.58 carbon tetrachloride

12.20 bromo dichloromethane

12.91

13.41 1,2-dichloropropane

13.70 trans-1,3-dichloropropene

14.22 trichloroethylene

benzene

14.63

14.97 ± 3 coeluters

15.99

16.91

17.60 bromoform

18.94

19.83 ± 2-coeluters

20.65

toluene

21.00

chlorobenzene

22.18

23.55

ethyl benzene

24.23

28.98

38.18

STOP

HP RUN # 232
ID: 111061
ESTD

OCT/11/85

TIME 09:19:50

RT	EXP RT	AREA	CAL #	AMT
4.71	4.71	17390	(R) 1	48.119
6.86	6.88	25500	2	44.271
7.45	7.47	11180	3	101.452
8.08	8.09	32400	4	48.634
8.71	8.72	31360	5	47.573
9.36	9.38	12570	6	49.802
10.02	10.04	31090	7	52.112
11.21	11.23	23540	8	48.496
11.58	11.60	8942	9	48.714
12.20	12.22	11460	10	47.355
13.41	13.43	46620	11	49.680
13.70	13.72	18450	12	50.995
14.22	14.24	26560	13	48.645
14.63	14.65	122900	14	48.847
14.97	14.99	86260	15	53.551
17.60	17.64	6456	16	64.963
19.83	19.86	35150	17	51.419
21.00	21.03	128400	18	49.575
22.18	22.20	91720	19	48.985
24.23	24.26	126900	20	49.872

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 90
TIME1 3.00
RATE 8.00
ESCAPE
CALIB ESTD
% RTW: 4

REF:	RT	AMT
:	7.00	5.8
:	7.04	1.6
:	7.07	2.0
:	7.10	2.4
:	7.13	2.0
:	7.16	2.4
:	7.19	2.0
:	7.22	2.4
:	7.25	2.0
:	7.28	2.4
:	7.31	2.0
:	7.34	2.4

1
1 9 1 2 2 4 . .
1 1 2 2 2 . .
: : : : : : : :
: : : : : : : :

DIL FACTOR: 1 . 0

READY

TEMP1 400 60 60
TIME1 3.00
RATE 8.00
TEMP2 400 220
TIME2 120.00
INJ TEMP 400 215 215
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 200 200

CHT SPD 1.00
ZERO 10.0
ATTN 2↑ 4
FID SGNL A
SLP SENS 0.15
AREA REJ 0
FLOW A 0.0 29.0
FLOW B 0.0 34.7

TEMP2 2 1 0 0
TIME2 2 0 0

START 0.12

1.56

water blank

4.70

16.09

23.23

35.19

HP RUN # 230
ID: 111061
ESTD

OCT/11/85

TIME 07:44:42

RT	EXP RT	AREA	CAL #	AMT
4.70	4.71	901	(R) 1	2.493

DIL FACTOR: 1.0000 E+ 0

ESCAPE

START

5 min

1.59

4.75

7.48

8.99

9.85

12.18

16.09

19.72

20.56

21.02

12 14.31

28.72

STOP

HP RUN # 231

ID: 111061

ESTD

OCT/11/85

TIME 08:39:01

RT	EXP RT	AREA	CRL #	AMT
4.75	4.71	866	(R) 1	2.396
7.48	7.53	10880	3	98.730
12.18	12.32	115	18	0.475
19.72	20.02	187	17	0.274
21.02	21.20	1169	18	0.451

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 139
TIME1 3.00
RATE 8.00
TEMP2 400 210
TIME2 20.00
INJ TEMP 400 215 215
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 200 200

CHT SPD 1.00
ZERO 10.0
ATTN 2↑ 4
FID SGNL A
SLP SENS 0.15
AREA REJ 0
FLOW A 0.0 29.0
FLOW B 0.0 25.8

HP RUN # 231

OCT/11/85

TIME 08:39:01

ESCAPE

TEMP1 400 60 100

PURGEABLES - Method 624 (modification for GC/FID)

7.5 mL / 10 mL

SAMPLE ID: EMSL 483 Conc 1 (QA/QC) STANDARD ID: 50 ppb A+B

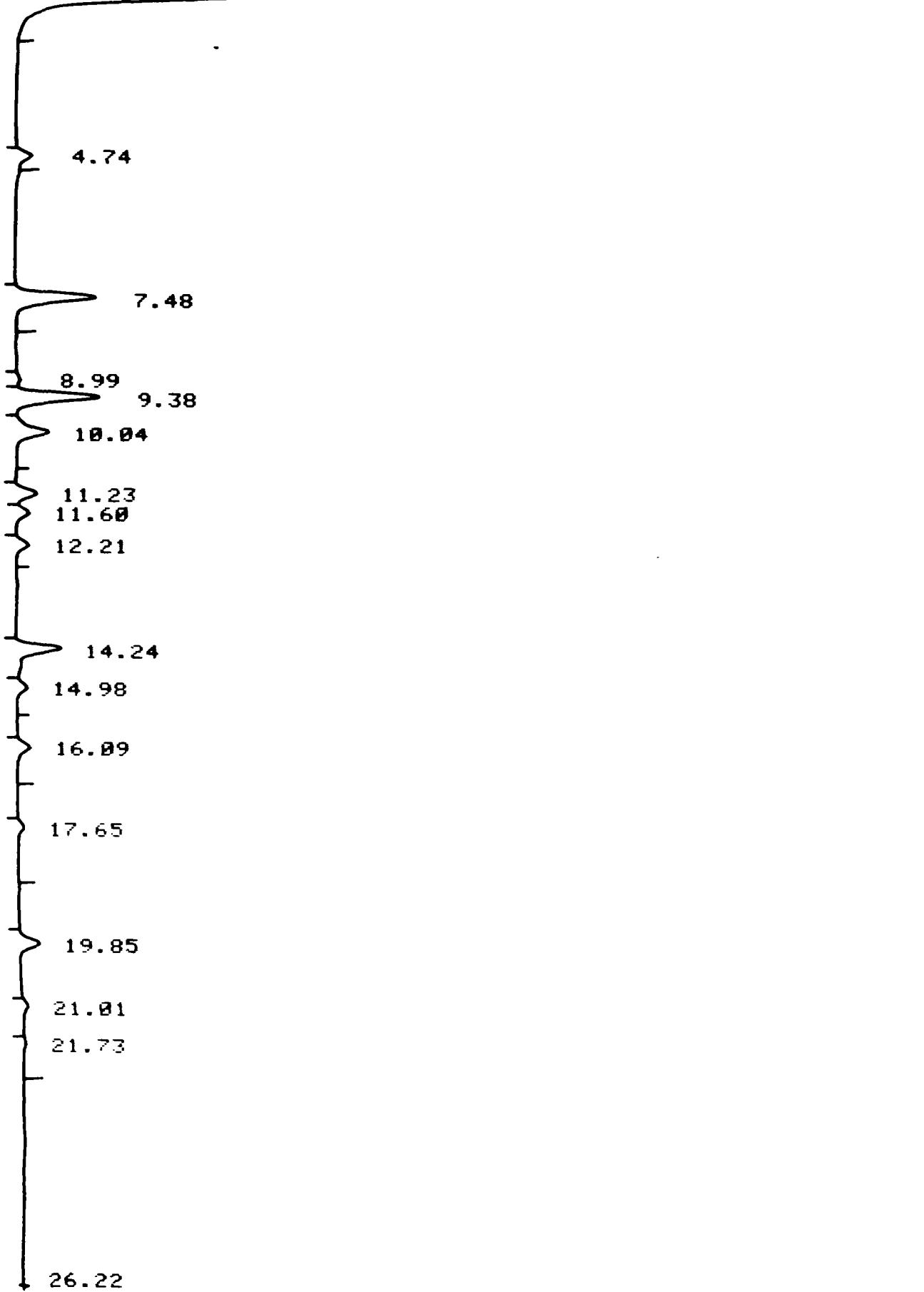
DATE: 10/11/85

QA/QC'd: _____

PARAMETER	RT	RESPONSE	DAILY STANDARD RESPONSE	CONC (ug/L)	% Recover
CHLOROMETHANE		not	analyzed		
BROMOMETHANE		not	analyzed		
VINYL CHLORIDE		not	analyzed		
CHLOROETHANE		not	analyzed		
METHYLENE CHLORIDE	4.74	1467	7390	4.1	
TRICHLOROFLUOROMETHANE		not	analyzed		
1,1-DICHLOROETHENE					
1,1-DICHLOROETHANE					
TRANS-1,2-DICHLOROETHENE					
CHLOROFORM	9.38	9932	12570	30.51 = 10.51	87.6
1,2-DICHLOROETHANE	10.04	4808	31090	7.73 = 2.06	103.0
1,1,1-TRICHLOROETHANE	11.23	2661	23540	5.65 = 1.50	107.1
CARBON TETRACHLORIDE	11.60	1150	8942	9.23 = 2.45	94.2
BROMODICHLOROMETHANE	12.21	1523	11460	6.64 = 1.77	88.5
1,2-DICLOROPROPANE					
TRANS-1,3-DICLOROPROPENE	14.24	6069	26560	11.42 = 3.04	104.8
BENZENE					
*DIBROMOCHLOROMETHANE	14.98	1391	can't do		
*1,1,2-TRICHLOROETHANE					
*CIS-1,3-DICHLOROPROPENE					
2-CHLOROETHYL VINYL ETHER		not	analyzed		
BROMOFORM	17.65	801	6454	1.20 = 1.65	56.9
#1,1,2,2-TETRACHLOROETHANE	19.85	2695	35150 for bath		
#TETRACHLOROETHENE					
TOLUENE	21.01	1380	128400	.54	ND
CHLOROBENZENE					
ETHYL BENZENE					
1,3-DICHLOROBENZENE		not	analyzed		
1,2-DICHLOROBENZENE		not	analyzed		
1,4-DICHLOROBENZENE		not	analyzed		
*#& #: coeluting compounds					
EMSL Dilution = 5x Our Dilution = 1.33					
INTERNAL STANDARD RECOVERY					
BROMOCHLOROMETHANE	7.48	10550	94.4 %		

Column conditions: Carbopak B (60/80 mesh) coated with 1% SP-1000 in a 6' x 2 mm ID glass column with He carrier at 30 ml/min., at 60°C for 3 min., then programmed at 80°C per min. to 220°C and held.

TEMP 1
TEMP 2
400 60 60
Q&Q run
7.5 ml / 5 ml
tMOL H₂ conc 1
1.58



HP RUN # 233
ID: 111061
ESTD

OCT/11/85

TIME 10:01:49

RT	EXP RT.	AREA	CAL #	RMT
4.11	4.71	1467	(R) 1	4.218
7.18	7.49	10550	3	94.365
8.38	9.41	9932	6	39.587
10.04	10.08	4808	7	7.732
11.23	11.28	2661	8	5.652
11.60	11.65	1650	9	9.226
12.21	12.27	1523	10	6.645
14.24	14.31	6069	13	11.425
14.98	15.06	1391	15	0.886
17.65	17.71	801	16	6.204
19.85	19.95	2695	17	3.834
21.01	21.13	1380	18	0.537

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 111
TIME1 3.00
RATE 8.00
TEMP2 400 210
TIME2 20.00
INJ TEMP 400 215 215
FID TEMP 400 250 250
TCD TEMP 400 250 250
401X TEMP 400 200 200

DET SPD 1.00
ZERO 10.0
ATTN 2↑ 6
FID SGNL A
SLP SENS 0.15
AREA REJ 0
FLOW A 0.0 29.0
FLOW B 0.0 29.2

HP RUN # 233

OCT/11/85

TIME 10:01:49

ID: 111061

AREA %

RT	AREA	AREA %
1.58	821600	94.502
4.74	1467	0.169
7.48	10550	1.213
8.99	290	0.033
9.38	9932	1.142
10.04	4808	0.553
11.23	2661	0.306
11.60	1650	0.190
12.21	1523	0.175
14.24	6069	0.698
14.98	1391	0.160
16.09	1531	0.176
17.65	801	0.092
19.85	2695	0.310
21.01	1380	0.159
21.73	1051	0.121

DIL FACTOR: 1.0000 E+ 0

Dil. Factor: 2000X

PURGEABLES - Method 624 (modification for GC/FID)

SAMPLE ID: STA 04 log/10 ml
 DATE: 10/11/85 5.0 ml/10 ml

STANDARD ID: 50 ppB A+B
 QA/QC'd: 99

PARAMETER	RT	RESPONSE	DAILY STANDARD RESPONSE	CONC (ug/L)
CHLOROMETHANE		not	analyzed	
BROMOMETHANE		not	analyzed	
VINYL CHLORIDE		not	analyzed	
CHLOROETHANE		not	analyzed	
METHYLENE CHLORIDE	4.73	1600	17390	4.6 ND
TRICHLOROFLUOROMETHANE		not	analyzed	
T,1-DICHLOROETHENE	6.76	113	25500	.22 BMSC
T,1-DICHLOROETHANE	8.10	228	32400	.35 BMSC
TRANS-1,2-DICHLOROETHENE				
CHLOROFORM				
1,2-DICHLOROETHANE				
1,1,1-TRICHLOROETHANE	11.21	13.81	23540	2.9
CARBON TETRACHLORIDE	11.52	270	8942	1.51
BROMODICHLOROMETHANE	12.19	397	11460	1.73
1,2-DICLOROPROPANE	13.44	150	41620	.16 BMSC
TRANS-1,3-DICLOROPROPENE				
TRICHLOROETHENE	14.23	1054	26560	1.98
BENZENE	14.65	8002	122900	5.26
*DIBROMOCHLOROMETHANE				
*T,1,2-TRICHLOROETHANE				
*CIS-1,3-DICHLOROPROPENE				
2-CHLOROETHYL VINYL ETHER		not	analyzed	
BROMOFORM				
#1,1,2,2-TETRACHLOROETHANE				
#TETRACHLOROETHENE				
TOLUENE	21.03	100400	128400	39.1
CHLOROBENZENE				
ETHYL BENZENE	24.26	88240	1266900	34.0
1,3-DICHLOROBENZENE		not	analyzed	
1,2-DICHLOROBENZENE		not	analyzed	
1,4-DICHLOROBENZENE		not	analyzed	

*#: coeluting compounds

INTERNAL STANDARD RECOVERY

BROMOCHLOROMETHANE	7.45	11000	98.4 %
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Column conditions: Carbopak B (60/80 mesh) coated with 1% SP-1000 in a 6' x 2 mm ID glass column with He carrier at 30 ml/min., at 60°C for 3 min., then programmed at 80°C per min. to 220°C and held.

checked
JES/11

TEMP1 400 60 61

STA 04
repeat with 95 5.0 ml Samp
10 ml std.

START 8.08

1.26 1.03

1.76

3.11

4.73 methylene chloride
5.04

6.10

6.76 1,1-dichloroethene

7.45 +3

8.10 1,1-dichloroethane

8.52

8.98

9.53

9.86

10.78

11.21 1,1-trichloroethane
11.52 Carbon tetrachloride

12.19 Bromodichloromethane

12.55

12.92

13.44 1,2-dichloropropane

14.23 trichloroethene

14.65 Benzene

15.44

15.73

16.11

17.07

17.92

18.92

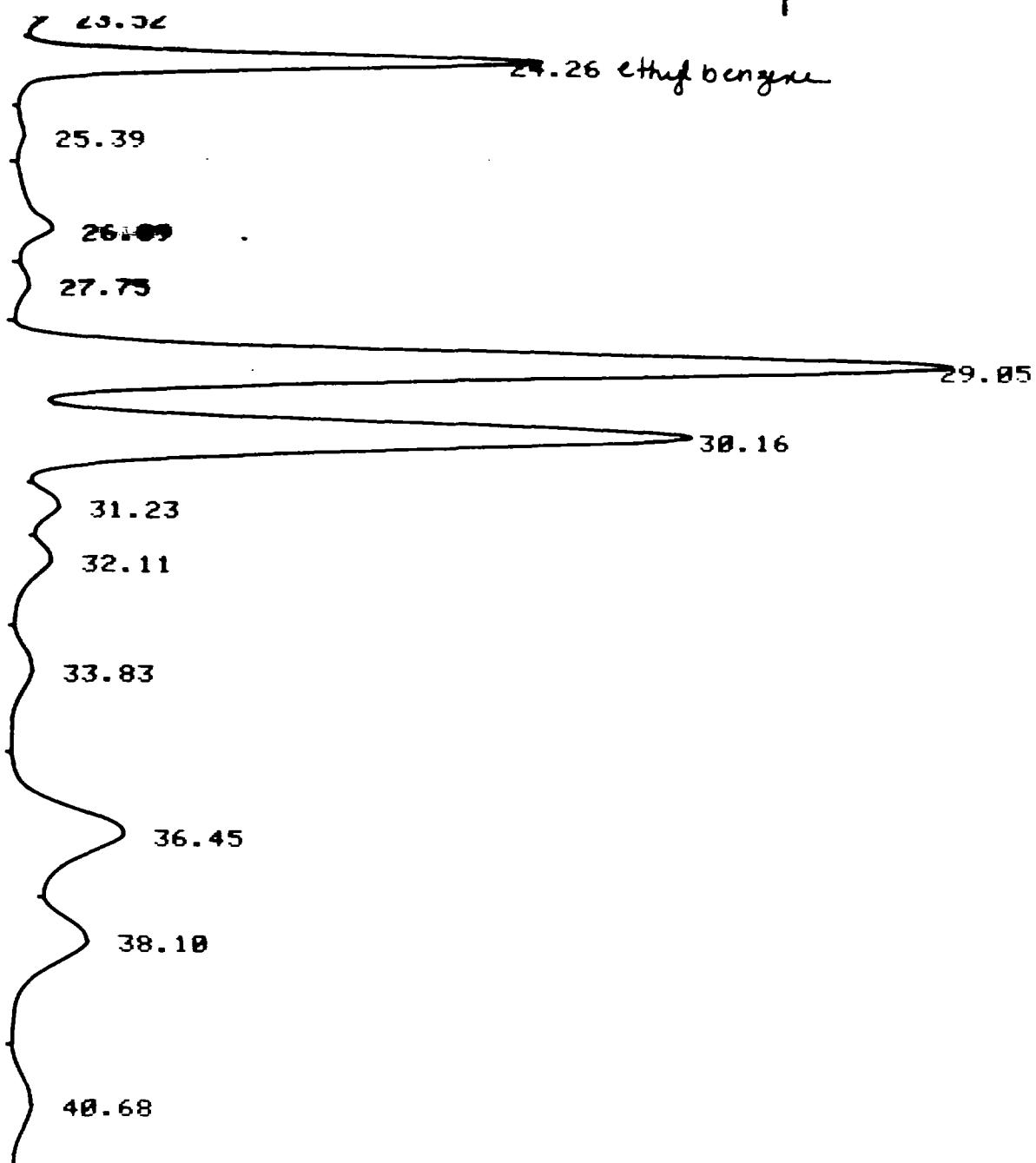
19.75

20.36

21.03 toluene

21.80

22.27



HP RUN # 234
ID: 111061
ESTD

OCT/11/85

TIME 10:43:46

RT	EXP RT	AREA	CAL #	RMT
4.73	4.71	1600	(R)	4.600
6.76	6.88	113		0.222
7.45	7.48	11000		98.390
8.10	8.11	229		0.352
9.53	9.39	364		1.448
9.86	10.06	1300		2.091
11.21	11.25	1281		2.933
11.52	11.62	270		1.510
12.19	12.25	397	10	1.732
13.44	13.46	150	11	0.161
14.23	14.28	1054	13	1.984
14.65	14.69	8002	14	3.255
17.92	17.67	4550	16	35.239
19.75	19.91	3381	17	4.809
21.93	21.92	1000000	18	79.097

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 100
TIME1 3.00
RATE 8.00
TEMP2 400 210
TIME2 200.00
INJ TEMP 400 215 215
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 200 200

CHT SPD 1.00
ZERO 10.0
ATTN 2↑ 6
FID SGNL A
SLP SENS 0.15
AREA REJ 0
FLOW A 0.0 29.0
FLOW B 0.0 30.2

HP RUN # 234
ID: 111061
AREA %

OCT/11/85

TIME 10:43:46

RT	AREA	AREA %
0.08	15	0.001
1.03	45950	2.599
1.26	29230	1.653
1.76	782400	44.250
3.11	3547	0.201
4.73	1600	0.090
5.04	555	0.031
6.10	314	0.018
6.76	113	0.006
7.45	11000	0.622
8.10	228	0.013
8.14	100	0.008
8.98	914	0.052
9.53	364	0.021
9.86	1300	0.074
10.70	887	0.050
11.21	1381	0.078
11.52	270	0.015
12.19	397	0.022
12.55	1336	0.076
12.92	423	0.024
13.44	150	0.008
14.23	1054	0.060
14.65	8002	0.453
15.44	71	0.004
15.73	242	0.014
16.11	2347	0.133
17.07	2976	0.168
17.92	4550	0.257
18.92	3313	0.187
19.75	3381	0.191
20.36	1582	0.089
20.56	1080	0.061
21.03	100400	5.678
21.80	5942	0.336
22.27	2356	0.133
22.76	2110	0.110

23.32	7472	0.336
24.26	86240	4.877
25.39	7288	0.412
26.89	21830	1.235
27.75	9720	0.550
29.05	239500	13.545
30.16	192300	10.876
31.23	19890	1.125
32.11	21740	1.230
33.83	16380	0.926
36.45	65200	3.687
38.10	42620	2.410
40.68	10650	0.602

DIL FACTOR: 1.0000 E+ 0

Dilution factor = 2000

Detection limit = 2 ppm

PURGEABLES - Method 624 (modification for GC/FID)

10g

10ml US SCRAR SITE

SAMPLE ID: STA 05

5ml/10ml

STANDARD ID: 50 ppb A+B

DATE: 10/11/85

QA/QC'd:

PARAMETER	RT	RESPONSE	DAILY STANDARD RESPONSE	CONC (ug/L)
CHLOROMETHANE		not	analyzed	
BROMOMETHANE		not	analyzed	
VINYL CHLORIDE		not	analyzed	
CHLOROETHANE		not	analyzed	
METHYLENE CHLORIDE				
TRICHLOROFLUOROMETHANE		not	analyzed	
1,1-DICHLOROETHENE				
1,1-DICHLOROETHANE				
TRANS-1,2-DICHLOROETHENE				
CHLOROFORM				
1,2-DICHLOROETHANE				
1,1,1-TRICHLOROETHANE				
CARBON TETRACHLORIDE				
BROMODICHLOROMETHANE				
1,2-DICHLOROPROPANE				
TRANS-1,3-DICHLOROPROPENE				
TRICHLOROETHENE				
BENZENE				
*DIBROMOCHLOROMETHANE				
*1,1,2-TRICHLOROETHANE				
*CIS-1,3-DICHLOROPROPENE				
2-CHLOROETHYL VINYL ETHER		not	analyzed	
BROMOFORM				
#1,1,2,2-TETRACHLOROETHANE				
#TETRACHLOROETHENE				
TOLUENE				
CHLOROBENZENE				
ETHYL BENZENE				
1,3-DICHLOROBENZENE		not	analyzed	
1,2-DICHLOROBENZENE		not	analyzed	
1,4-DICHLOROBENZENE		not	analyzed	
*#&: coeluting compounds				

INTERNAL STANDARD RECOVERY

BROMOCHLOROMETHANE	7.48	9102	814	%
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Column conditions: Carbopak B (60/80 mesh) coated with 1% SP-1000 in a 6' x 2 mm ID glass column with He carrier at 30 ml/min., at 60°C for 3 min., then programmed at 80°C per min. to 220°C and held.

START

1.58

2+ 4

US Scrap

\$1.65

4.75 methylene chloride

7.48

5ml
10.0 ml

9.01

9.87

12.26 monodichloro methane

12.94

14.56

16.13

T2 120.00

19.76

21.07 toluene

22.82

- 28.93

36.64

TEMP 280 2200a

stop 29

HP RUN # 237
ID: 111061
ESTD

OCT/11/85

TIME 17:08:55

RT	EXP RT	AREA	CAL #	AMT
4.75	4.71	1048	(R) 1	3.013
7.48	7.51	9102	3	81.413
12.26	12.30	234	10	1.021

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 143
TIME1 3.00
RATE -0.00
TEMP2 400 220
TIME2 12.00
INJ TEMP 400 215 215
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 200 200

CHT SPD 1.00
ZERO 10.0
ATTN 2↑ 4
FID SGNL A
SLP SENS 0.15
AREA REJ 0
FLOW A 0.0 28.8
FLOW B 0.0 26.4

HP RUN # 237

OCT/11/85

TIME 17:08:55

ID: 111061

AREA %

RT	AREA	AREA %
1.58	897000	97.596
4.75	1048	0.114
7.48	9102	0.990
9.01	1026	0.112
9.87	768	0.084
12.26	234	0.025
12.94	199	0.022
14.56	711	0.077
16.13	1989	0.216
19.76	311	0.034
21.87	285	0.031
22.82	2614	0.284
36.64	701	0.076
48.29	3107	0.338

DIL FACTOR: 1.0000 E+ 0

ESCAPE

Dilution factor = 2000

Det. limit = 2 ppm

10.0 ml

PURGEABLES - Method 624 (modification for GC/FID)

5 ml/10.0 ml Sup

SAMPLE ID: 715 Serp Site JTA 03

STANDARD ID: 50 ppb A+B

DATE: 10/11/85

QA/QC'd:

PARAMETER	RT	RESPONSE	DAILY STANDARD RESPONSE	CONC (ug/L)
CHLOROMETHANE		not	analyzed	
BROMOMETHANE		not	analyzed	
VINYL CHLORIDE		not	analyzed	
CHLOROETHANE		not	analyzed	
METHYLENE CHLORIDE				
TRICHLOROFLUOROMETHANE		not	analyzed	
1,1-DICHLOROETHENE				
1,1-DICHLOROETHANE				
TRANS-1,2-DICHLOROETHENE				
CHLOROFORM				
1,2-DICHLOROETHANE				
1,1,1-TRICHLOROETHANE				
CARBON TETRACHLORIDE				
BROMODICHLOROMETHANE				
1,2-DICHLOROPROPANE				
TRANS-1,3-DICHLOROPROPENE				
TRICHLOROETHENE				
BENZENE				
*DIBROMOCHLOROMETHANE				
*1,1,2-TRICHLOROETHANE				
*CIS-1,3-DICHLOROPROPENE				
2-CHLOROETHYL VINYL ETHER		not	analyzed	
BROMOFORM				
#1,1,2,2-TETRACHLOROETHANE				
#TETRACHLOROETHENE				
TOLUENE				
CHLOROBENZENE				
ETHYL BENZENE				
1,3-DICHLOROBENZENE		not	analyzed	
1,2-DICHLOROBENZENE		not	analyzed	
1,4-DICHLOROBENZENE		not	analyzed	

*& #: coeluting compounds

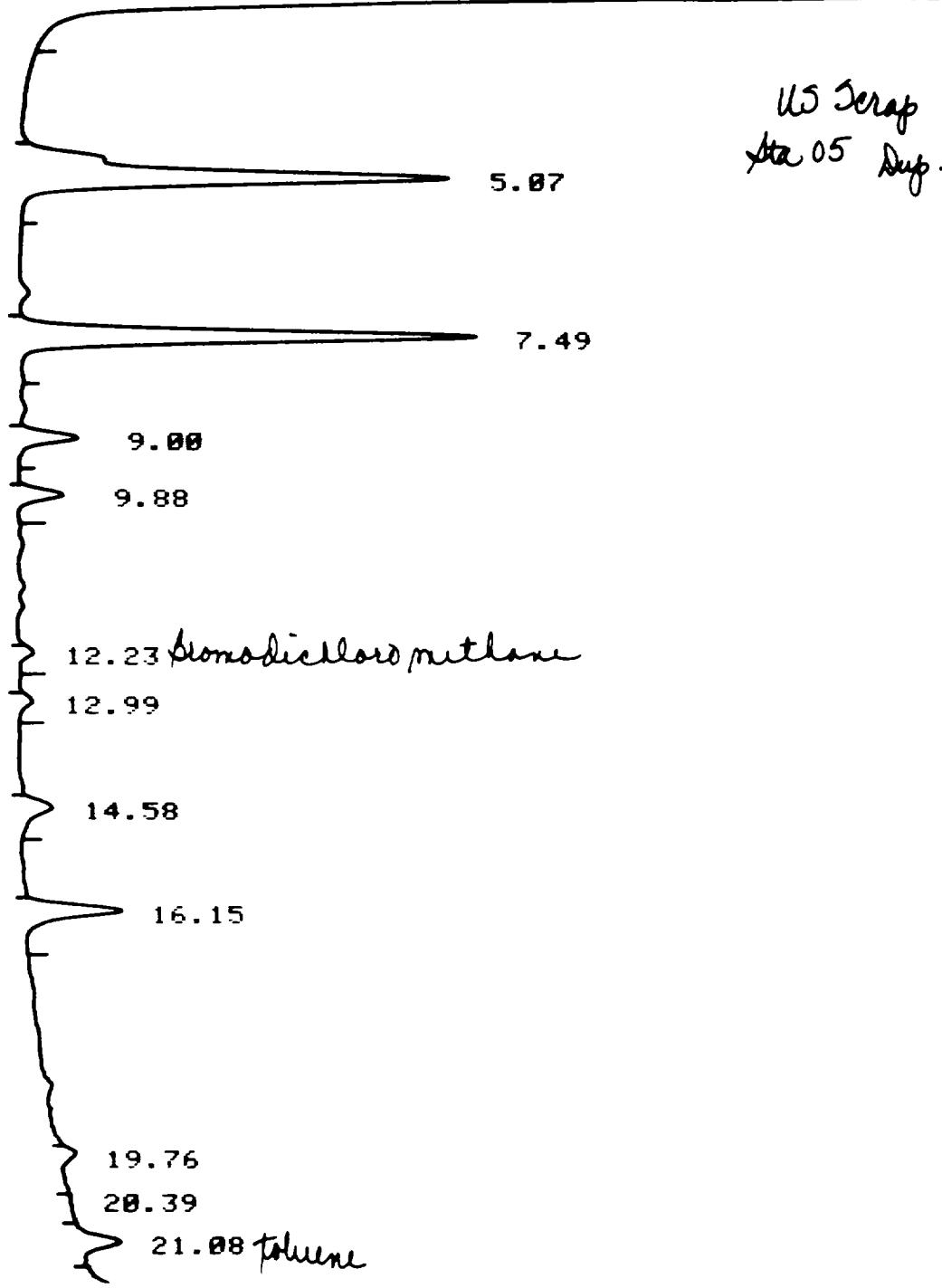
INTERNAL STANDARD RECOVERY

BROMOCHLOROMETHANE	7.49	11500	102.9 %
--------------------	------	-------	---------

Column conditions: Carbopak B (60/80 mesh) coated with 1% SP-1000 in a 6' x 2 mm ID glass column with He carrier at 30 ml/min., at 60°C for 3 min., then programmed at 80°C per min. to 220°C and held.

CHT SPD 0 2
CHT SPD 1 3
START 0.11

1.73



23.46

STA-05

Duplicate

IP RUN # 238
ID: 111061
ESTD

OCT/11/85

TIME 18:29:49

RT	EXP RT	AREA	CAL #	RMT
7.49	7.45	11500	3	102.862
9.88	10.02	1016	7	1.634
12.23	12.20	264	10	1.152
14.58	14.63	982	14	0.400
19.76	19.83	372	17	0.529
21.08	21.00	1112	18	0.433
22.31	22.18	236	19	0.129

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 60 141
TIME1 3.00
RATE 8.00
TEMP2 400 220
TIME2 120.00
INJ TEMP 400 215 215
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 200 200

CHT SPD 1.00
ZERO 10.0
ATTN 2↑ 4
FID SGNL A
SLP SENS 0.15
AREA REJ 0
FLOW A 0.0 28.9
FLOW B 0.0 26.5

IP RUN # 238
ID: 111061
AREA %

OCT/11/85

TIME 18:29:49

RT AREA AREA %

	14280	1.071
7.49	11500	0.884
9.00	1280	0.098
9.88	1016	0.078
12.23	264	0.020
12.99	272	0.021
14.58	982	0.075
16.15	2503	0.192
19.76	372	0.029
20.39	57	0.004
21.08	1112	0.085
21.77	788	0.061
22.31	236	0.018
23.46	1919	0.147

DIL FACTOR: 1.0000 E+ 0

START

250 cps
Brucker
PSTO

0.63

ZERO 2
2↑ 4

ATTN 2↑ 5 2

6H36SPD . 5 2
7.15
7.81

9.83
10.84
12.16 25.

13.69 10.05

15.39 20
16.47 20

19.96
20.91

23.65

30.47

40.71

CALIBRATION RANGE AND STANDARDS 111061 At $\lambda =$ adjusted to 5

Sample #	Date	Run #	Bottle #	ATTN 2 ¹	H1	RT2	H2	RT3	H3	RT4	H4	Height Total	ATTN Adjustment	Extract Conc.	Dilution Factor	Sample Volume	Final Conc. PPB	% RE	
100 PPB	10/14	9	NOT PRINTED	5	12.46	11	14.02	4.5	15.81	8	14.80	8	31.5	31.5	-	-	-	100	5.9%
PPB 250		8	"	5	12.16	23	13.69	10.05	15.39	20	14.37	20	73.05	73.05	-	-	-	250	2.0%
500 PPB		11	97	5	12.25	46	13.80	21	15.49	41	16.57	41	199	149	-	-	-	500	0
1000 PPB		13	88	6	12.26	40.5	13.81	18	15.54	36	16.57	37	131.5	26	-	-	-	1000	11.7%
2000 PPB	10/15	15	82	6	12.25	86	13.81	42	15.53	79	16.59	78	285	570	-	-	-	2000	4.4%
50 PPB	10/15	3	83	5	12.19	7.5	13.41	4	15.48	6.5	16.52	6	24	24	-	-	-	50	38% LINEARITY AS
(PPB) 250	10/14	12	NOT PRINTED	5	12.35	23.5	13.93	11	15.67	20	14.71	20	74.5	74.5	-	-	-	250	0%
(PPB) 1000	10/14	1	87	7	12.21	20	13.76	10	15.46	19	16.51	19	168	27	-	-	-	500	
Aroclor 1260																			
Aroclor 1248																			
Aroclor 1221																			
263 PPB	10/14	3	89	5	4.43	21	5.16	16	6.42	30	7.47	27.5	94.5	94.5	-	-	-	263	
PPB	10/15	2	82	5	1.40	17.5	20.0	15	2.24	48	2.81	7	89.5	89.5	-	-	-	490	

checked
initialization

45.94

STOP

HP RUN # 8 OCT/14/85 TIME 11:33:16
AREAS?

TEMP1 400 210 210
TIME1 60.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 10.0
ATTN 2↑ 5
AUX SGNL +B
SLP SENS 0.00 0.44
AREA REJ 1000000
FLOW A 0.0 0.0
FLOW B 0.0 46.2

START 8.63

100 ft. Ascent
1200

5.05
6.67 7.98

11.20
12.46 //

14.02 4.5

15.81 ♀
16.88 ♂

FB 0.0 46.1
20.36

24.13

31.10

46.63

57.53

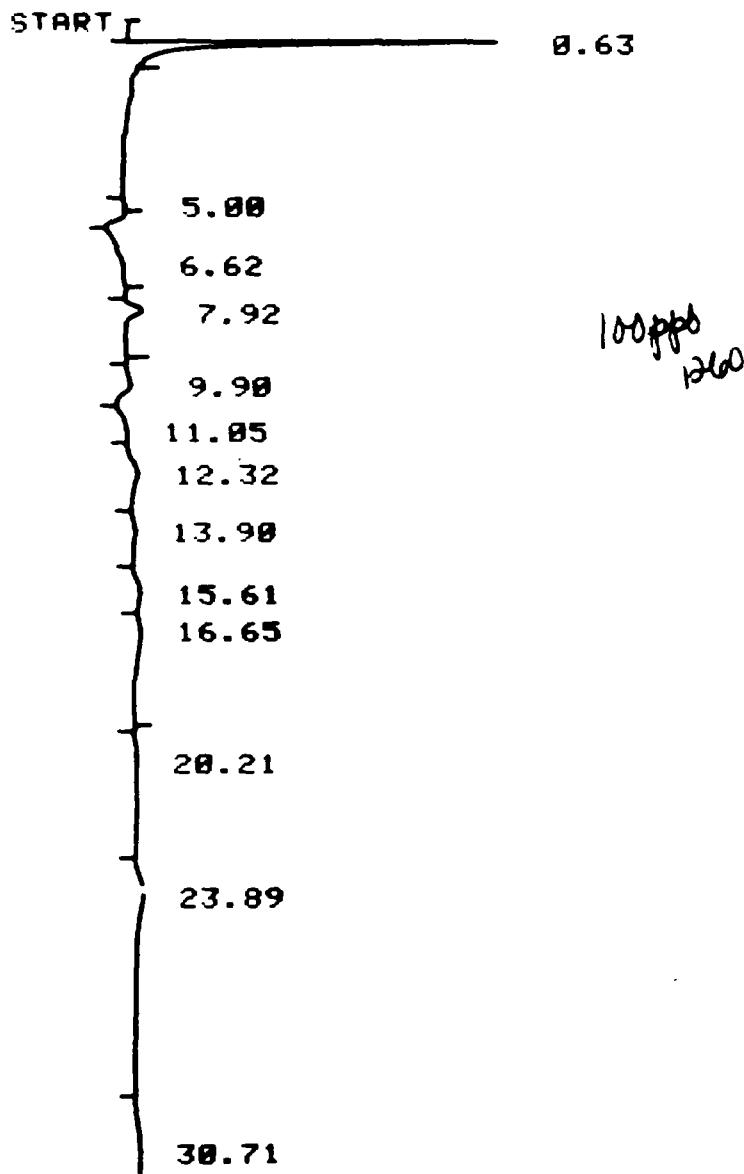
HP RUN # 9
AREAS?

OCT/14/85

TIME 12:40:29

TEMP1 400 210 210
TIME1 60.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 10.0
ATTN 2↑ 5
AUX SGNL +B
SLP SENS 0.00 0.48
AREA REJ 1000000
FLOW A 0.0 0.0
FLOW B 0.0 46.2



48.67

STOP

HP RUN # 10
AREAS?

OCT/14/85

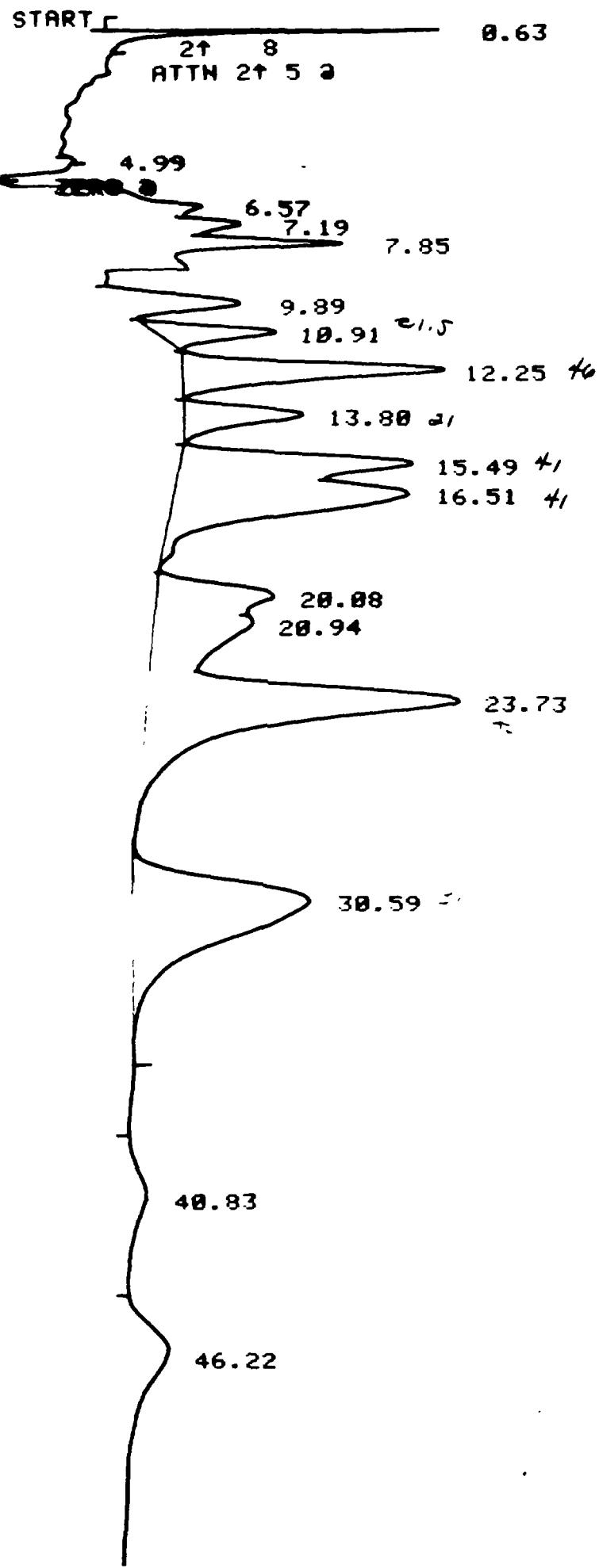
TIME 13:42:52

TEMP1 400 210 210
TIME1 60.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 10.0
ATTN 2↑ 8
AUX SGNL +B
SLP SENS 0.00 0.43
AREA REJ 10000000
FLOW A 0.0 0.0
FLOW B 0.0 46.2

OPTN # 1 2
ID: 1 1 1 0 6 1 2
OPTN # 2 2
(M-D-Y) DATE: 1 0 - 1 4 - 8 5
(H.M.S) TIME: 3 . 0 0 2 2
OPTN # 2 2
(M-D-Y) DATE: 1 0 - 1 4 - 8 5
(H.M.S) TIME: 0 3 . 0 5 . 0 2
OPTN #2
DATE: OCT/14/85
TIME: 03:05:04

AREA REJ 1 0 0 0 0 0 2



500ppb

1240

58.35

HP RUN # 11
ID: 111061
NO PEAKS IN WDOS

OCT/14/85
BOTTLE 97

TIME 03:06:41

RT	AREA	AREA %
16.51	135200	31.095
23.73	173000	39.788
30.59	126600	29.117

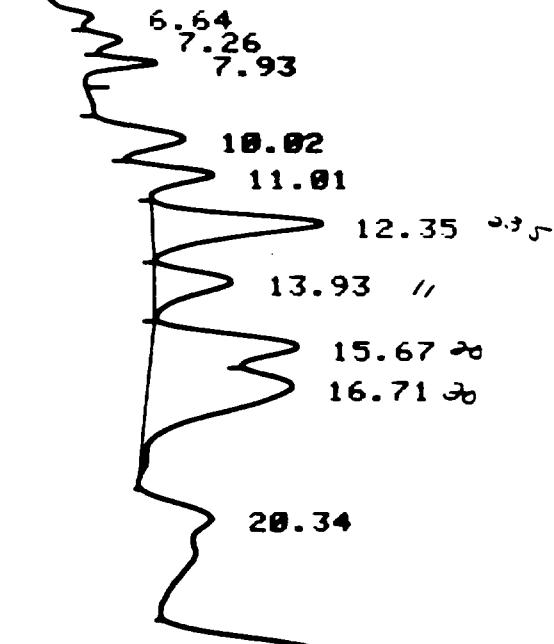
DIL FACTOR: 1.0000 E+ 0

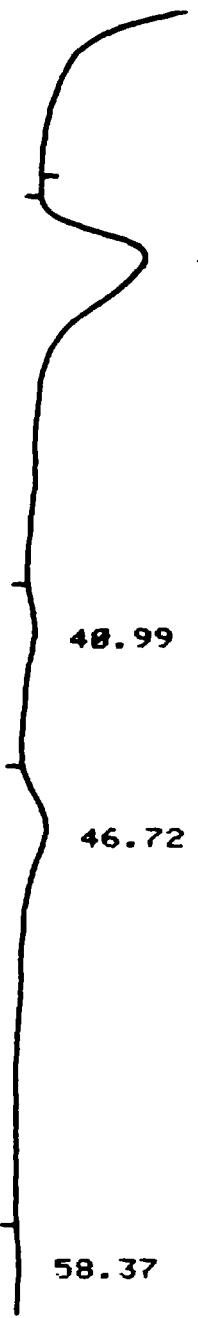
TEMP1 400 210 210
TIME1 60.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 10.0
ATTN 2↑ 5
AUX SGNL +B
SLP SENS 0.00 0.55
AREA REJ 100000
FLOW A 0.0 0.0
FLOW B 0.0 46.2

START

0.63





TEMP2 31.02

48.99

46.72

58.37

HP RUN # 12
AREAS?

OCT/14/85

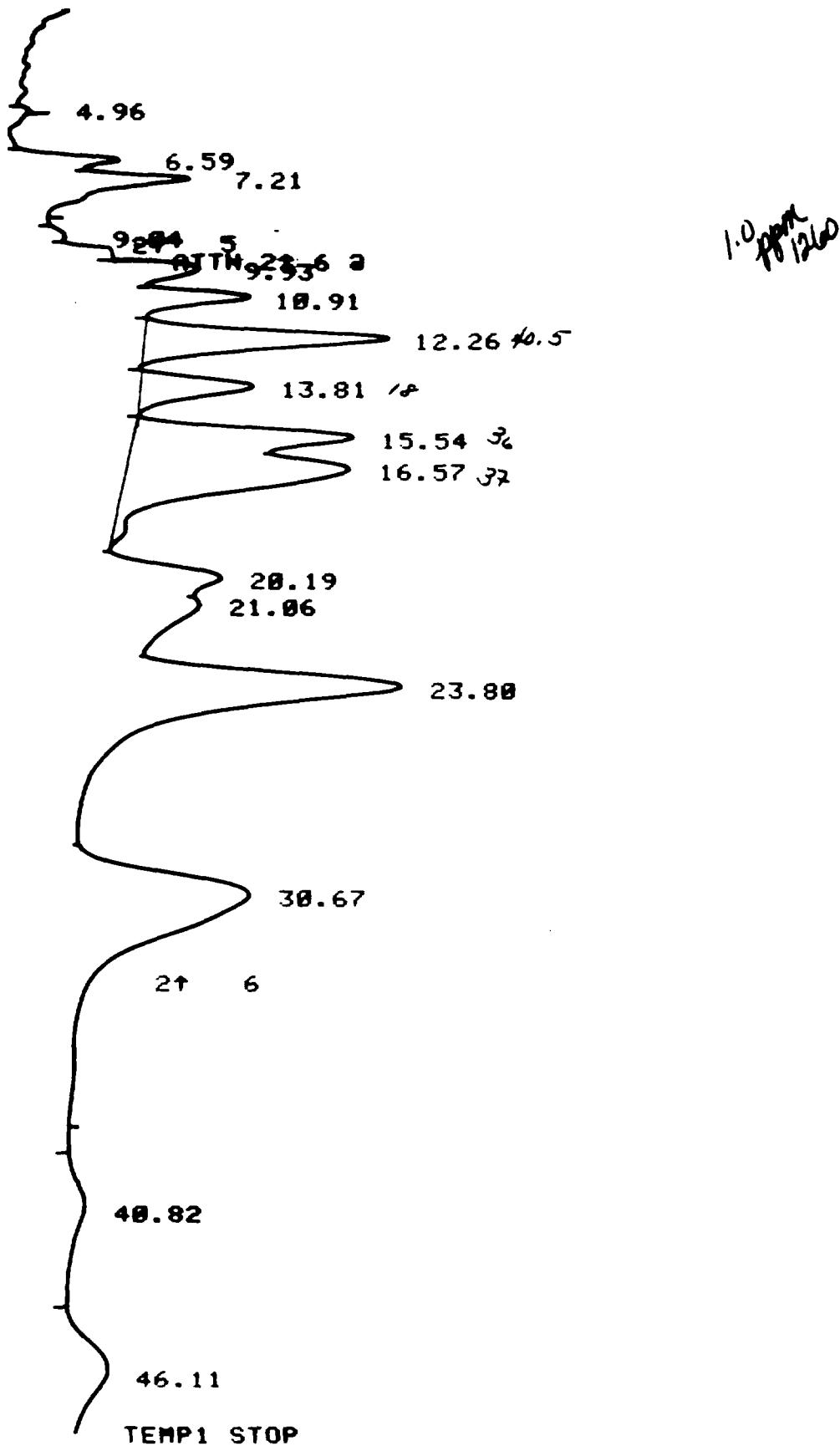
TIME 04:09:35

TEMP1 400 210 210
TIME1 68.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 10.0
ATTN 2↑ 5
AUX SGNL +B
SLP SENS 0.00 0.39
AREA REJ 100000
FLOW A 0.0 0.0
FLOW B 0.0 46.2

START

0.62



P RUN # 13
D:111061
NO PEAKS IN WDOS

OCT/14/85
BOTTLE 88

TIME 05:11:58

RT	AREA	AREA %
12.26	166300	12.055
13.81	109100	7.909
ESCAPE		

0 LIST LIST
5 ATTN 2↑ 7
9 ATTN 2↑ 8
ESCAPE
DELETE CHANGE RUN 2
DELETE ESTD
CHANGE RUN 0 2
CHANGE RUN 0 LIST LIST
CHANGE RUN 1 ATTN 2↑ 5 2
ATTN 2↑ 7 2

0 LIST LIST
1 ATTN 2↑ 5

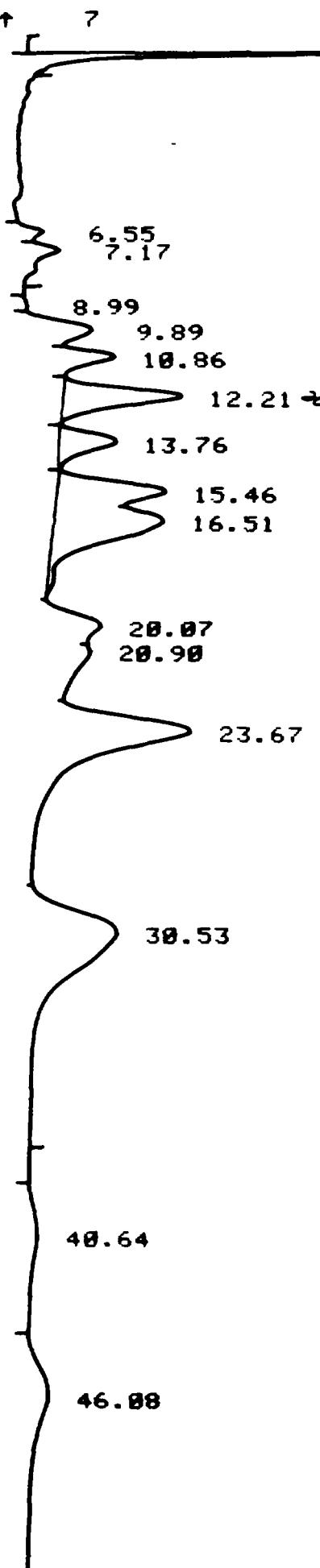
TEMP1 400 210 210
TIME1 60.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 10.0
ATTN 2↑ 7
AUX SGNL +B
SLP SENS 0.00 0.46
AREA REJ 100000
FLOW A 0.0 0.0
FLOW B 0.0 46.2

TIME1 6 5 2
ZERO 1 5 2

ATTN 2↑
START

Bottom
Crusher
1200
0.62



58.31

HP RUN # 1 OCT/14/85 TIME 06:04:47
ID: 111861 BOTTLE 87
AREA %

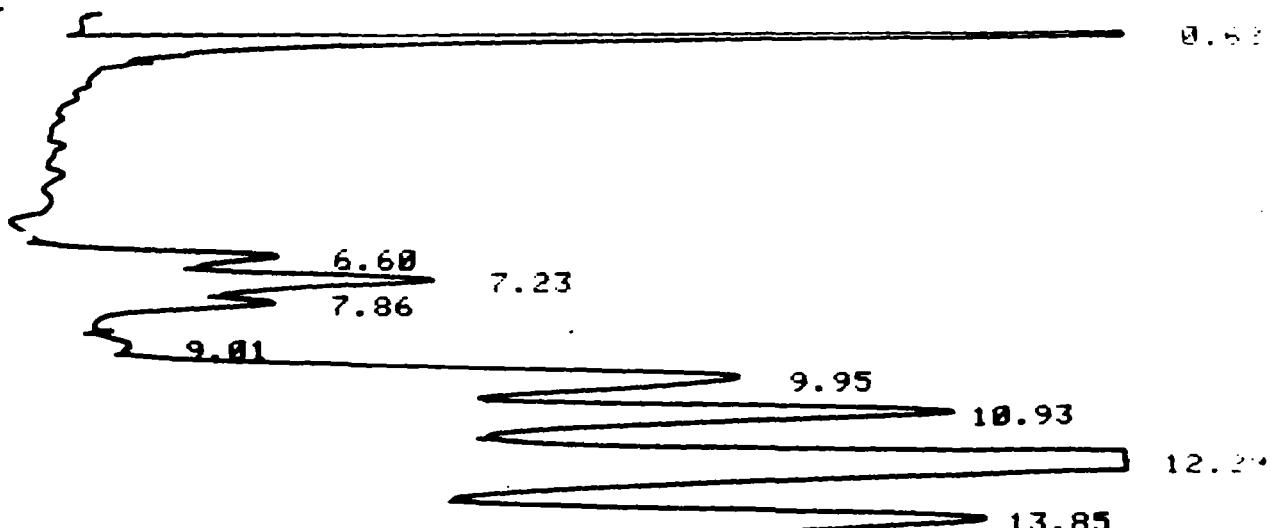
RT	AREA	AREA %
12.21	162600	11.911
13.76	106900	7.831
15.46	139800	10.241
16.51	250700	18.365
20.90	120100	8.798
23.67	328500	24.064
30.53	256500	18.790

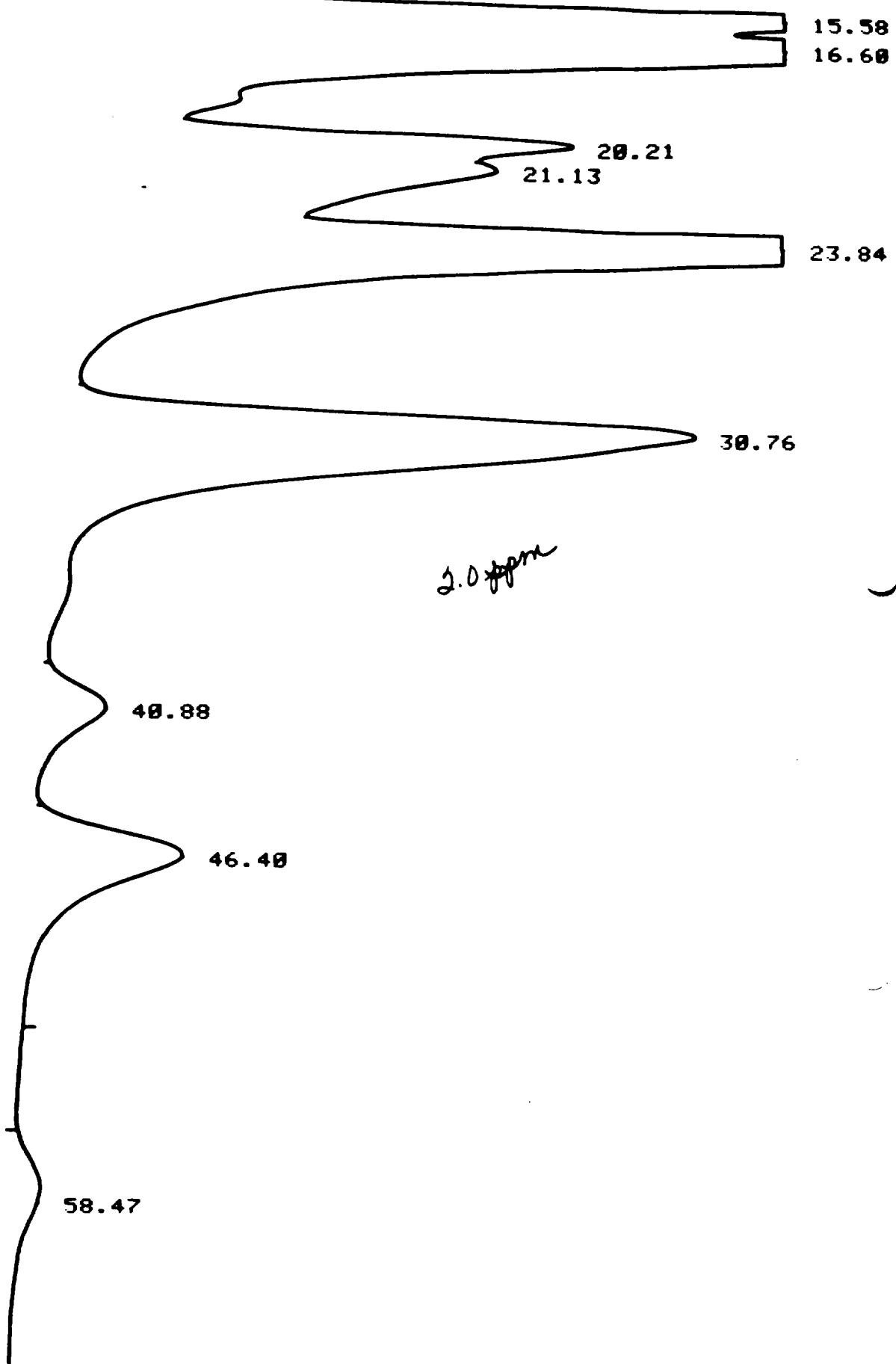
DIL FACTOR: 1.0000 E+ 0

TEMP1 400 210 210
TIME1 65.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 15.0
ATTN 2↑ ?
AUX SGNL +B
SLP SENS 0.00 0.31
AREA REJ 100000
FLOW A 0.0 0.0
FLOW B 0.0 46.2

START





HP RUN # 2
ID: 111061
AREA %

OCT/14/85
BOTTLE 88

TIME 07:12:58

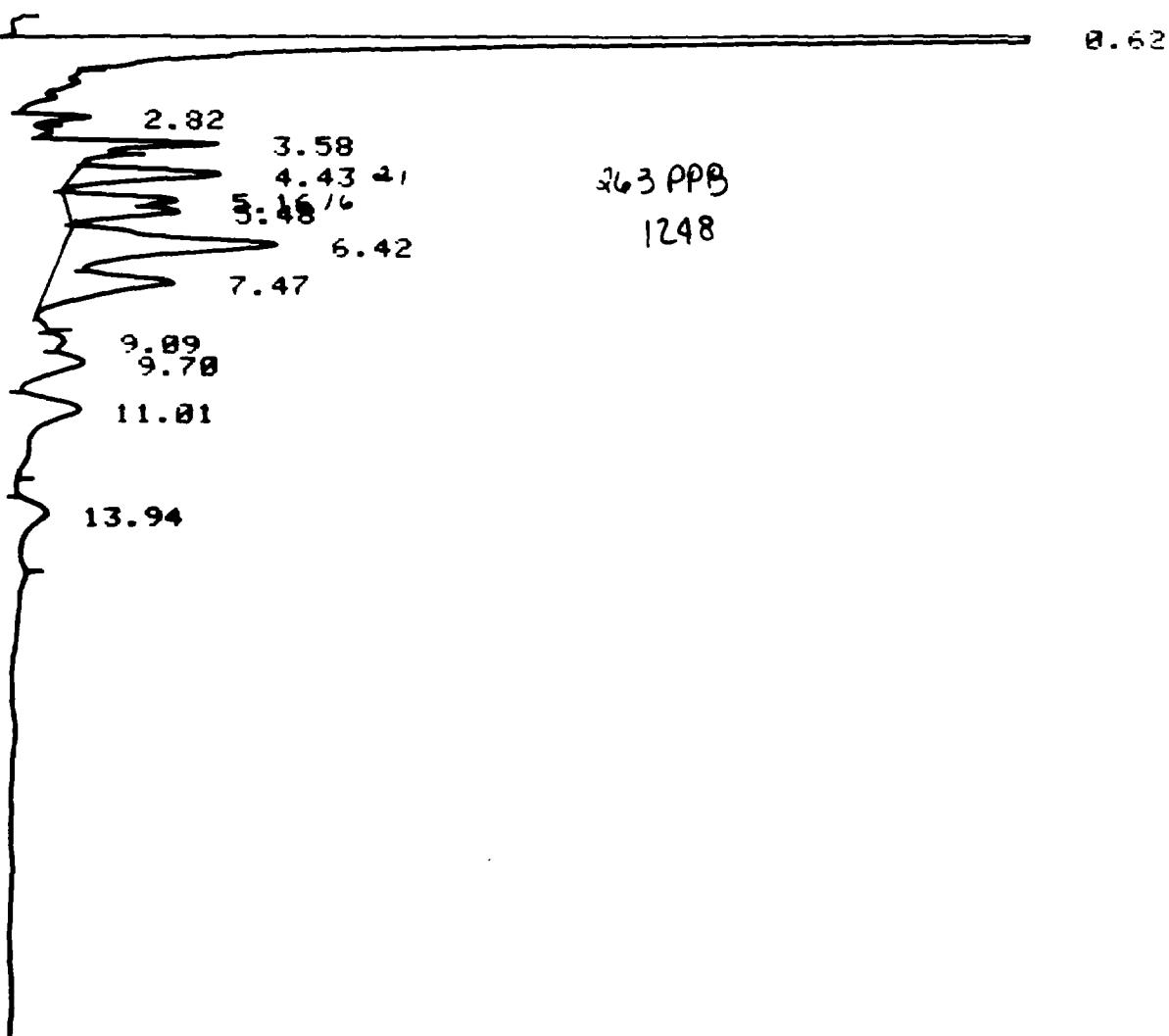
9.95	112500	3.452
10.93	139100	4.268
12.29	304400	9.340
13.85	201000	6.168
15.58	264900	8.128
16.60	476900	14.633
18.21	182100	5.588
21.13	228900	7.024
23.84	645000	19.791
30.76	571300	17.530
46.40	132900	4.078

DIL FACTOR: 1.0000 E+ 0

TEMP1	400	210	210
TIME1	65.00		
INJ TEMP	400	250	250
FID TEMP	400	250	250
TCD TEMP	400	250	250
AUX TEMP	400	250	250

CHT SPD	8.50
ZERO	15.0
ATTN 2↑	5
AUX SGNL	+8
SLP SENS	0.00 0.42
AREA REJ	100000
FLOW A	0.0 0.0
FLOW B	0.0 46.1

START



NORMALIZED ANALYSIS

Sample #	Date	Run #	Bottle #	ATTN 2#	RT1	H1	RT2	H2	RT3	H3	RT4	H4	Height Total	ATTN Adjustment	Extract Conc. PPE	Dilution Factor	Sample Volume	Final Conc. (PPM)
Aroclor 1254 250 PPE	10/17	27	97	6	4.33	9	8.93	7	10.86	19	-	-	34	74				
Aroclor 1260 500 PPE	10/14	11	97	5	16.51	41	22.73	54	30.59	31	-	-	1260	11	11			
Aroclor 1260 500 PPE	10/15	4	84	5	16.47	50	23.61	71	30.43	40	-	-	161	1	1			
1254 → SCRAP	10/14	6	NOT PRINTED	5	4.42	8.5	9.07	4	11.06	8	-	-	20.5	20.5	61	1/20,408	9.8g	1414
1260 → SCRAP	10/14	6	NOT PRINT	5	16.10	4	24.01	3.5	31.04	3.5	-	-	11.	11.	42	1/20,408	1.6g	810
1254 → SCRAP	10/14	7	PRINTED	1	4.41	8	9.05	8	11.81	1	-	-	23.1	23.1	111.1	1/11	1.1	21.1
1260 → SCRAP	10/14	7	"	-	15.67	2	22.11	20.8	29.8	1	-	-	17.6	17.6	61.1	1/6	1.1	21.1

checked
JEB M. 1/13

US SCRAP SITE Instrument 1110's

Sample #	Date	Run #	Bottle #	ATTN 29	RT1	H1	RT2	H2	RT3	H3	RT4	H4	Height Total	ATTN Adjustment	Extract Conc.	Dilution Factor	Sample Name WE 1601	Final Conc.
1260 STA 01	10/14	10	NOT PRINTED	5	16.70	4	24.01	3.5	31.04	3.5	-	-	11	11	43.6	1/1408	9.8	890
1254 STA 01	10/14	6	NOT PRINTED	5	4.42	8.5	9.07	3	11.06	9	(8.55)	-	20.5	20.5	69.2	1/2x108	9.8	1414
1254 STA 02	10/14	7	NOT PRINTED	5	4.41	8	9.05	8	11.08	18	-	-	34.0	34.0	115	1/1700	10.1	2274
1260 STA 02	10/14	7	NOT PRINTED	5	~	6	23.95	4.5	30.85	7	-	-	17.5	17.5	67.1	1/1700	10.1	1375
1254 STA 02	10/14	8	NOT PRINTED	5	4.41	6	9.06	9	11.08	15	(4.25)	-	29.25	27.25	17.6	1/1800	10.1	1956
1260 STA 02	10/14	8	NOT PRINTED	5	16	5	23.95	4	30.99	6	-	-	15	15	57.5	1/1700	10.1	1178
1254 STD	10/17	27	97	6	4.33	9	8.93	9	10.86	19	-	-	24	24	-	-	-	-
1260 STD	10/14	11	97	5	16.51	41	23.73	34	30.51	31	-	-	126	126	-	-	-	-
1260 STA 04	10/14	9	95	5	~	9	23.97	4	30.99	5	-	-	18	18	91.4	1/1700	10.1	141.4
1254 STA 04	10/14	9	95	5	4.43	9	9.06	5.5	11.08	12.5	(11.9)	-	26.4	26.4	89.2	1/1700	10.1	176.6

Ratio for determining 1254 in 1254 for n = 1C = $\frac{PKH1AT + PKH2AT}{PKH1AT - PKH2AT}$

$$= \frac{4.25 + 8.75}{4.25 - 8.75} = \frac{11.7}{-4.5} = .45$$

checked
JMS Mihura

Sample #	Date	Run #	Bottle #	ATTN ZT	RT1	H1	RT2	H2	RT3	H3	RT4	H4	Height Total	ATTN Adjustment	Extract Conc.	Dilution Factor	Sample Volume (mL)	Final Conc.
STA05	10/14	10	NOT PRINTED	5 ←										→	ND	1/1000	10.0	ND
DUP STA05	10/14	11	NOT PRINTED	5 ←										→	ND	1/1980	10.1	ND
1254	10/14	13	80	5	4.42	20	9.07	13	11.01	31	(29.5)	—	—	62.45	62.45	210	1/200	10.0 42.0 ←
1260 STA05	10/14	13	80	5	16	11	23.80	11	30.65	13	—	—	35	35	139	1/200	10.0 27.8	
1260 STA05	10/14	14	81	5	16	8.5	23.54	6	30.35	9	—	—	23.5	23.5	93.2	1/200	10.0 18.6	
STA03	10/15	6	80	5 ←									→	—	—	—	1/20	— ND
1260 STA05	10/14	11	97	5	14.25	46	13.80	21	10.41	41	—	—	122	51	—	—	—	
EMSL	10/14	5	91	6	12.39	5	12.84	3	15.7	7	—	—	15	15	137	1/10	10.0 g 2.78	

checked
JBM:he

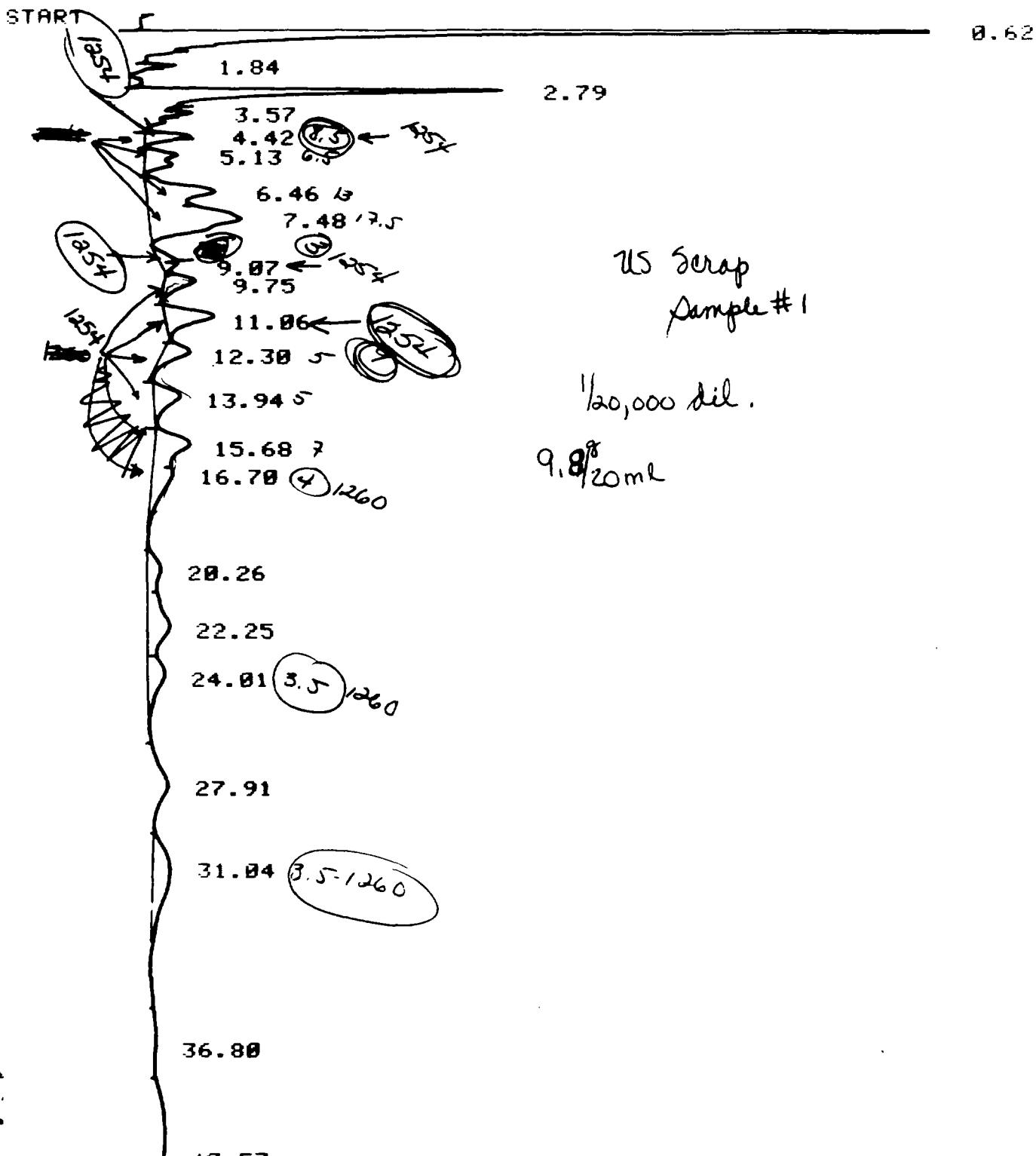
Sample #	Date	Run #	Bottle #	ATTN 2†	RT1	H1	RT2	H2	RT3	H3	RT4	H4	Height Total	ATTN Adjustment	Extract Conc.	Dilution Factor	Sample Volume (mL)	Final Conc.
1254 STD	10/15	7	87	5	4.39	6.4	9.96	4.2	10.89	9.5	—	—	200.5	200.5	677	1/178	10.1	134.0
1260 STD	10/15	7	87	5	—	3.2	23.52	27	30.30	42.5	—	—	101.5	101.5	315	1/198	10.1	62.4
1254 STD	10/15	27	97	6	4.33	9	8.93	9	10.86	19	—	—	37	74	—	—	—	—
1260 STD	10/15	4	84	5	16.47	3.0	23.61	71	30.48	40	—	—	116.1	116.1	—	—	—	—
1260 HOMOG	10/15	8	88	5	16.33	6	23.50	4	30.31	6.5	—	—	116.5	116.5	51.2	1/198	10.1	10.1
1254 HOMOG	10/15	8	88	5	4.38	10	8.95	7	10.89	16.5	—	—	32.7	32.7	110.5	1/178	10.1	31.9
DUP 1260	10/15	9	84	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—
DUP 1254	10/15	9	89	5	4.39	11	6.43	19	10.87	18	—	—	36.1	36.1	122.0	1/198	10.1	24.2

Ratio for 1254 in 1254:1260 mixtures = 9:1

(ch. 66)
10/15/2004

TEMP1 400 210 210
 TIME1 65.00
 INJ TEMP 400 250 250
 FID TEMP 400 250 250
 TCD TEMP 400 250 250
 AUX TEMP 400 250 250

CHT SPD 8.50
 ZERO 15.0
 ATTN 2↑ 5
 AUX SGNL +8
 SLP SENS 0.00 0.39
 AREA REJ 1000000
 FLOW A 0.0 0.0
 FLOW B 0.0 46.2



47.31

52.03

58.52

HP RUN # 6

OCT/14/85

TIME 11:44:36

AREAS?

TEMP1 400 210 210
TIME1 65.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 15.0
ATTN 2↑ 5
AUX SGNL +B
SLP SENS 0.00 0.36
AREA REJ 100000
FLOW A 0.0 0.0
FLOW B 0.0 46.1

START

0.62

2.28.83

2.79

3.58

4.41 ←

5:48

6.52

7.30

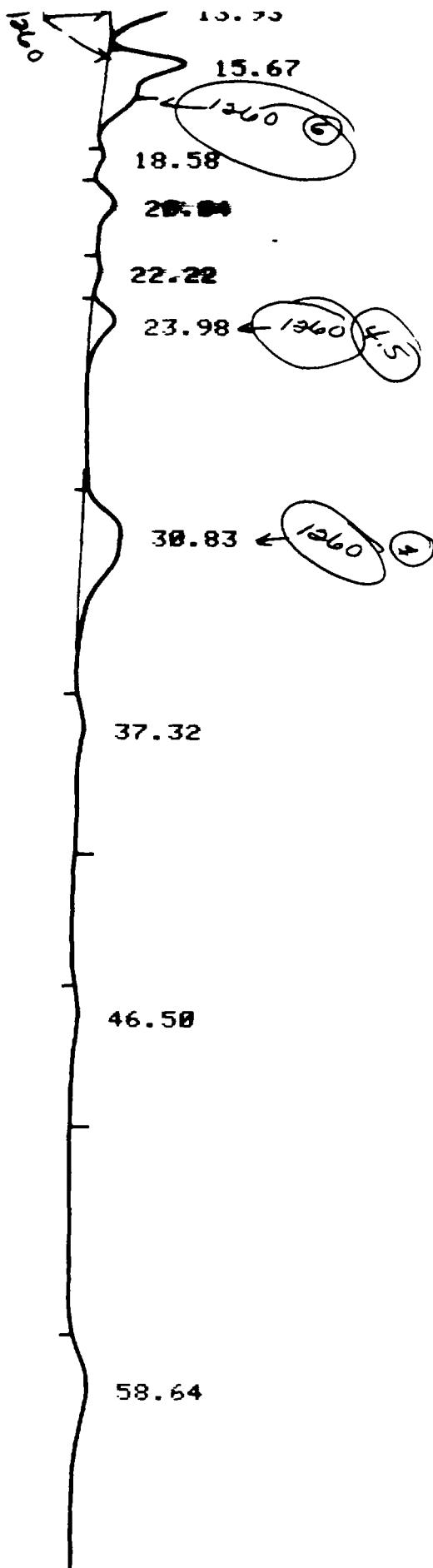
8.52

9.05

9.74

11.08

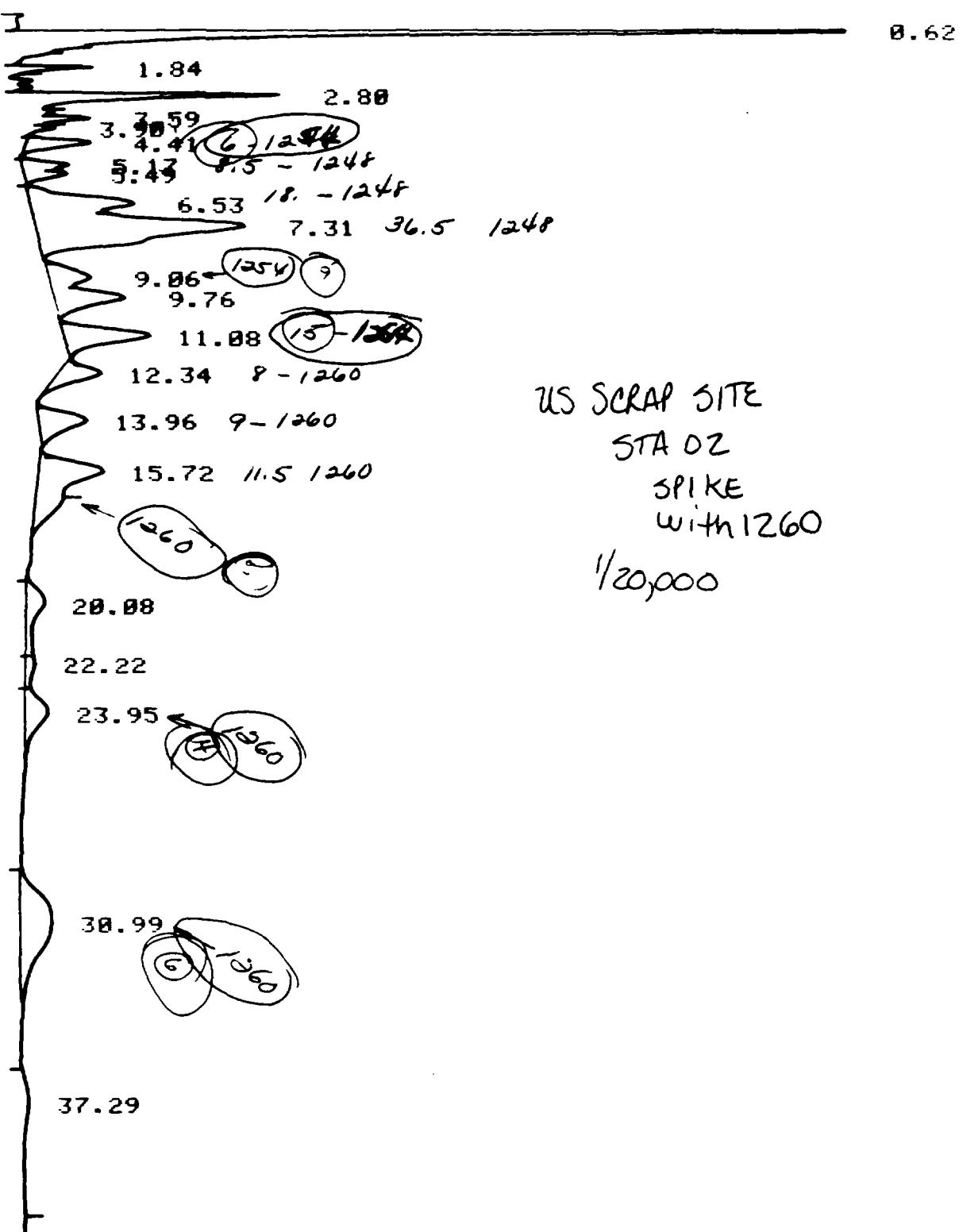
12.32



TEMP1 400 210 210
TIME1 65.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 8.50
ZERO 15.0
ATTN 2↑ 5
AUX SGNL +5
SLP SENS 0.00 0.28
AREA REJ 100000
FLOW A 0.0 0.0
FLOW B 0.0 46.1

START



46.58

u. Scrap 2
spiked
w/ 500 μl - 250 ppb
10.1 g/20 ml

59.07

HP RUN # 8
AREAS?

OCT/14/85

TIME 13:59:22

TEMP1 400 210 210
TIME1 65.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 15.0
ATTN 2↑ 5
AUX SGNL +8
SLP SENS 0.00 0.40
AREA REJ 100000
FLOW A 0.0 0.0
FLOW B 0.0 46.2

START

0.62

2.79

3.59

4.43 9-1258

5.17 7-
[REDACTED]

6.53 14-
[REDACTED]

7.31 21-
[REDACTED]

u. Scrap 04
1/3000 dil

9.06

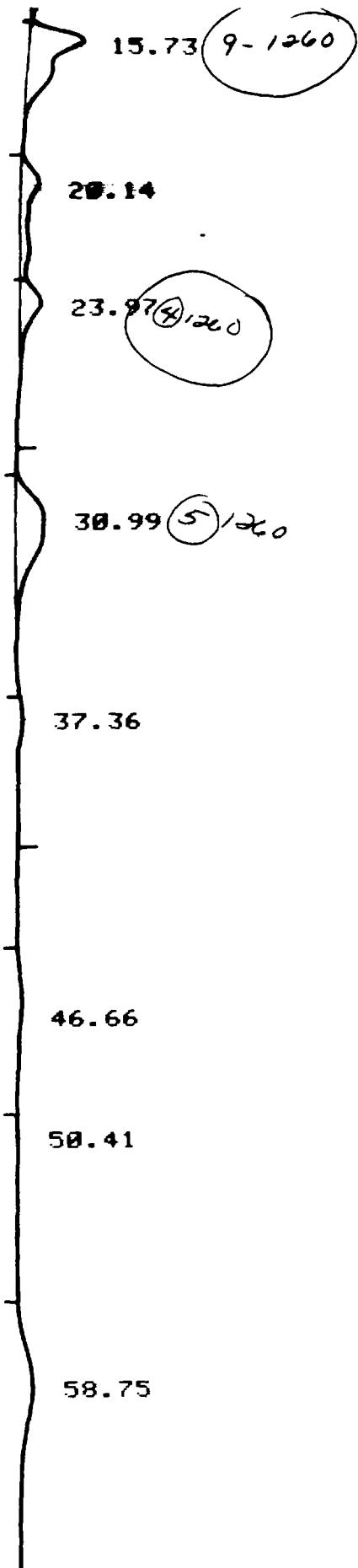
9.77

11.08 12.5-1258

12.33 7-1260

10.1 g
20 ml

[REDACTED] 2-1260



SURFACE, INC., Bala Cynwyd, PA. Cat. No. 2-2007 (part: 1
2-2008 Rev. of 10 parts)

HP RUN # 9
ID: 111061
AREA %

OCT/14/85
BOTTLE 95

TIME 15:06:45

0.62

154400 - 100.000

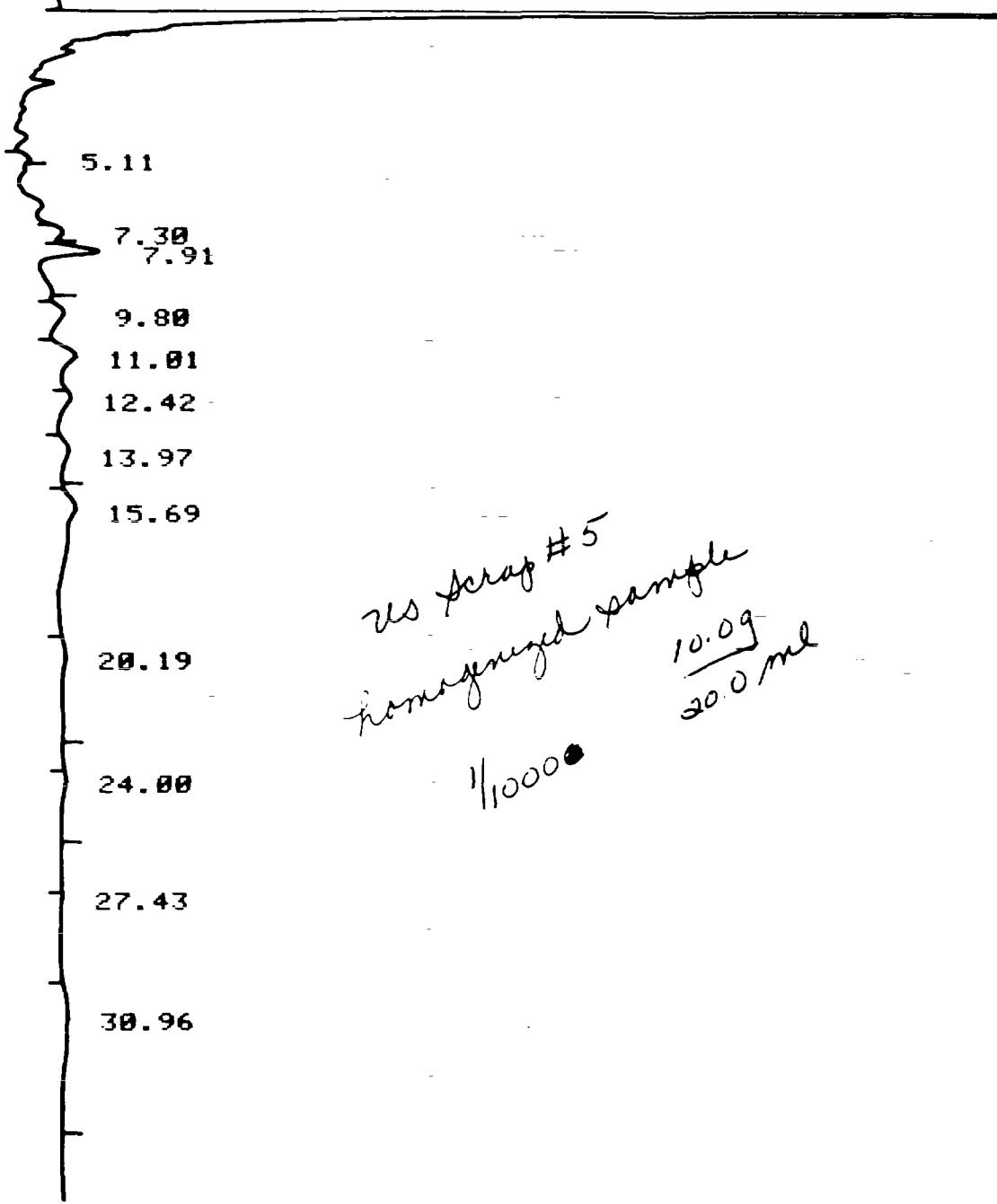
DIL FACTOR: 1.0000 E+ 0

TEMP1 400 210 210
TIME1 65.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 15.0
ATTN 2↑ 5
AUX SGNL +B
SLP SENS 0.00 0.58
AREA REJ 100000
FLOW A 0.0 0.0
FLOW B 0.0 46.1

START

0.62



HP RUN # 10
AREAS?

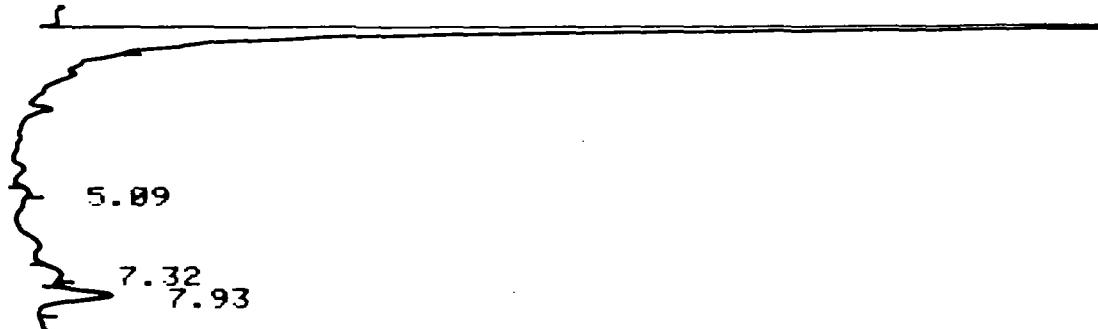
OCT/14/85

TIME 16:14:28

TEMP1 400 210 210
TIME1 65.00
INI TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 15.0
ATTN 2↑ 5
AUX SGNL +B
SLP SENS 0.00 0.44
AREA REJ 100000
FLOW A 0.0 0.0
FLOW B 0.0 46.1

START



5.09

5.09

7.32
7.93

9.73
11.87
12.39
13.89
15.59

as scrap
5
Homogenized

1/1000

10.17
20 ml

HP RUN # 11
AREAS?

OCT/14/85

TIME 17:21:51

TEMP1 400 210 210
TIME1 65.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 15.0
ATTN 2↑ 5
AUX SGNL +8
SLP SENS 0.00 0.37
AREA REJ 100000
FLOW A 0.0 0.0
FLOW B 0.0 46.2

START 1 0.65

35.21

44.58

56.36

59.28

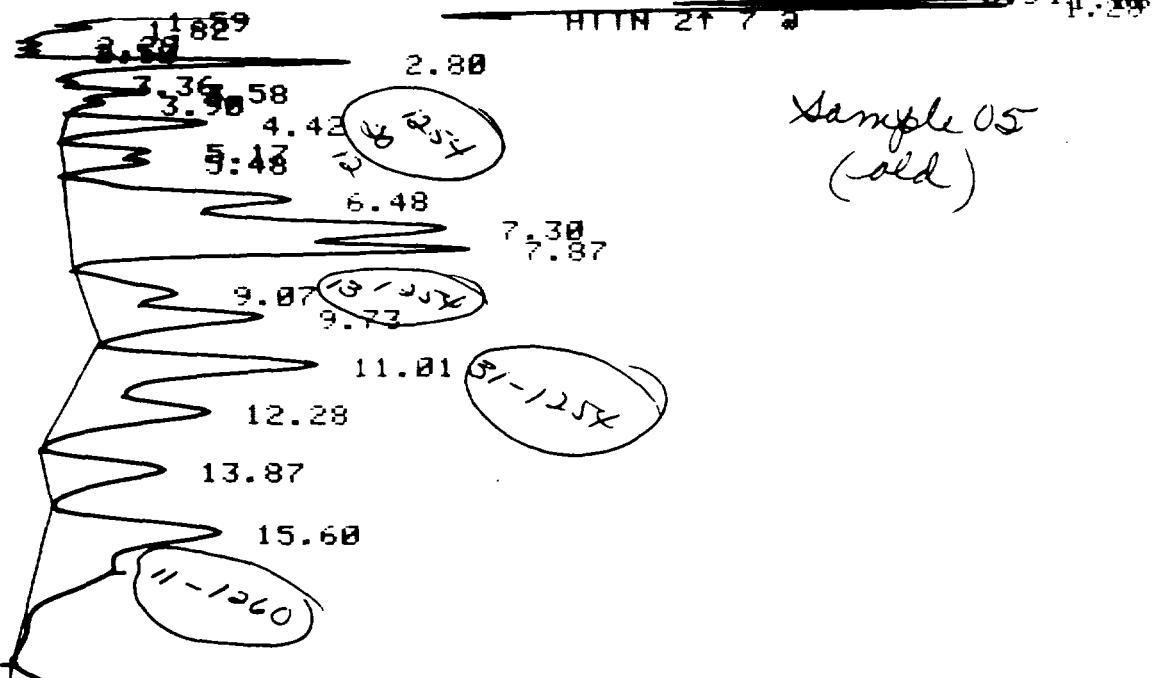
62.91

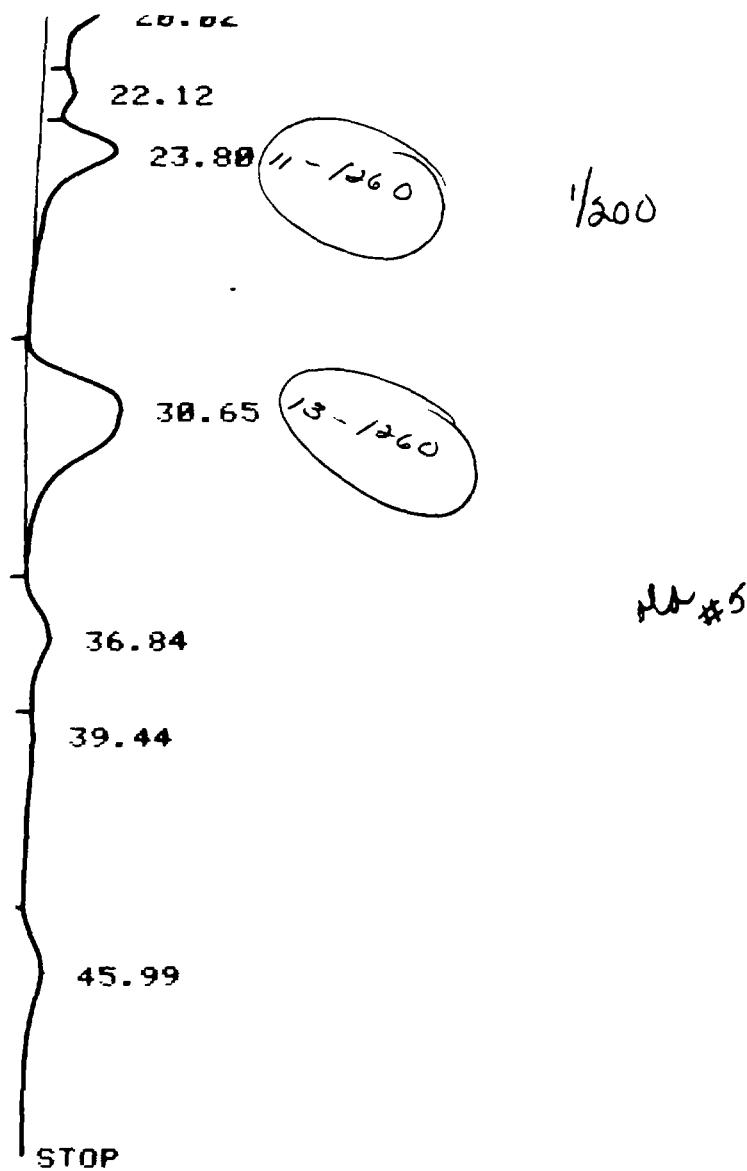
HP RUN # 12
AREAS?

OCT/14/85

TIME 18:29:14

TEMP1 400 210 210
ESCAPE
ESCAPE
START





14-1260

HP RUN # 13
ID:111061
AREA %

OCT/14/85
BOTTLE 80

TIME 19:36:41

RT	AREA	AREA %
0.63	126200	7.147
4.42	105400	5.969
6.48	192000	10.873
7.30	270300	15.307
7.87	187000	10.590
9.07	134300	7.605
9.73	186500	10.561
11.01	224100	12.690
12.28	132800	7.520
30.65	207300	11.739

DIL FACTOR: 1.0000 E+ 0

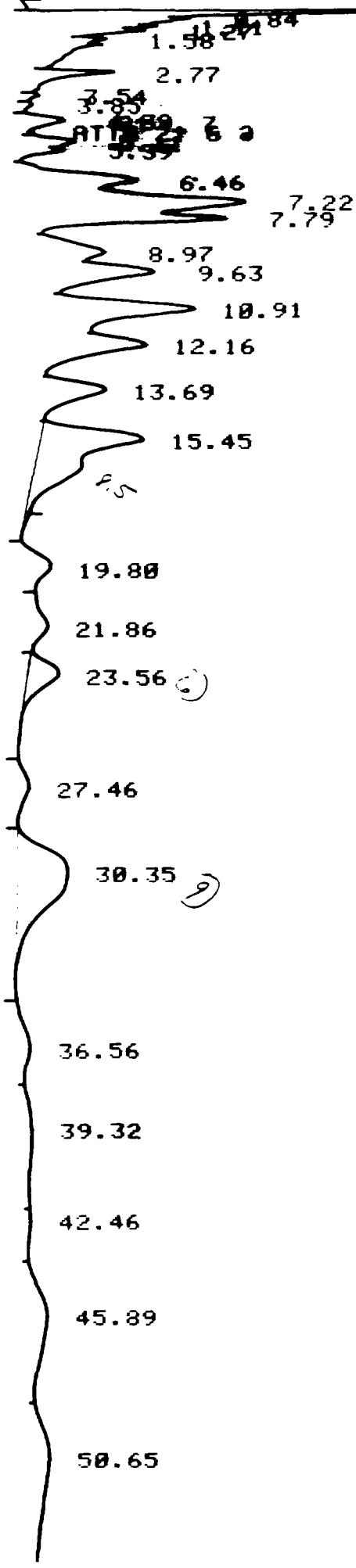
TEMP1	400	210	210
TIME1	65.00		
INJ TEMP	400	250	250
FID TEMP	400	250	250
TCD TEMP	400	250	250
AUX TEMP	400	250	250

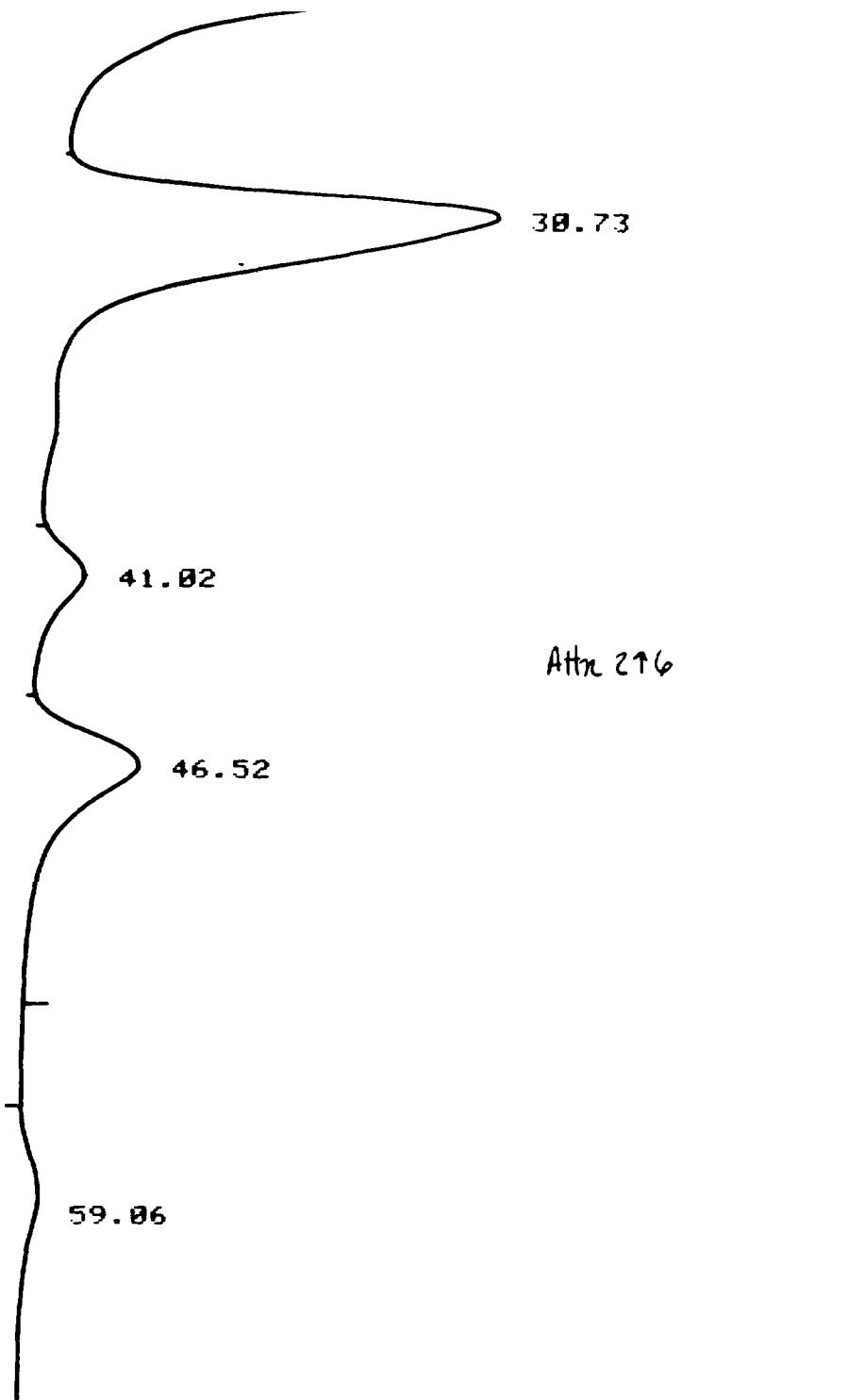
CHT SPD 0.50

RTTW 24	7
RUX SGNE	+B
SLP SENS	0.00 0.43
AREA REJ	100000
FLOW A	0.0 0.0
FLOW B	0.0 46.1

START

0.63





HP RUN # 15 OCT/14/85 TIME 21:39:05
ID: 111061 BOTTLE 82
AREA %

RT	AREA	AREA %
9.92	123400	3.595
10.90	146300	4.262
12.25	328100	9.558
13.81	212700	6.196
15.53	285900	8.329
16.59	444200	12.940
20.17	192800	5.617
21.06	241700	7.041
23.82	687200	20.019
30.73	618100	18.006
46.52	152300	4.437

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 210 210
TIME1 65.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 15.0
ATTN 2↑ 6
AUX SGNL +8
SLP SENS 0.00 0.51
AREA REJ 100000
FLOW A 0.0 0.0
FLOW B 0.0 46.1

START  0.65

STOP

HP RUN # 16 OCT/14/85 TIME 22:47:34
AREAS?

TEMP1 400 210 210
TIME1 65.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 15.0
ATTN 2↑ 6
AUX SGNL +8
SLP SENS 0.00 0.50
AREA REJ 100000
FLOW A 0.0 0.0
FLOW B 0.0 46.0

56.93

64.02

HP RUN # 1 OCT/15/85 TIME 07:07:52
ID:111061 BOTTLE 81
AREA %

RT	AREA	AREA %
0.62	59050	1.399
0.83	65060	1.541
1.13	139800	3.312
1.29	63470	1.504
1.44	182600	4.326
1.83	488000	11.561
2.25	296100	7.014
3.90	66860	1.584
4.94	71220	1.687
7.39	667000	15.801
9.73	241900	5.731
10.72	121100	2.869
12.06	219900	5.209
13.55	126400	2.994
15.24	183500	4.347
16.26	239300	5.669
19.75	101700	2.409
20.68	128100	3.035
23.29	373400	8.846
30.01	303700	7.195
45.23	83100	1.969

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 210 210
TIME1 65.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 15.0
ATTN 2↑ 8
AUX SGNL +B
SLP SENS 0.00 0.55
AREA REJ 50000
FLOW A 0.0 0.0
FLOW B 0.0 46.1

START

0.62

~~2.86 min~~

2.24

2.81
3.54

HgO ppd
Arreler 1221

HP RUN # 2

ID: 111061

AREA %

OCT/15/85

BOTTLE 82

TIME 08:17:07

RT	AREA	AREA %
8.62	84820	100.000

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 210 210

TIME1 65.00

INJ TEMP 400 250 250

FID TEMP 400 250 250

TCD TEMP 400 250 250

AUX TEMP 400 250 250

CHT SPD 0.50

ZERO 15.0

ATTN 2↑ 5

AUX SGNL +8

SLP SENS 0.00 0.54

AREA REJ 50000

FLOW A 0.0 0.0

FLOW B 0.0 46.1

START

T

8.62

4.96

7.83

10.90

12.19

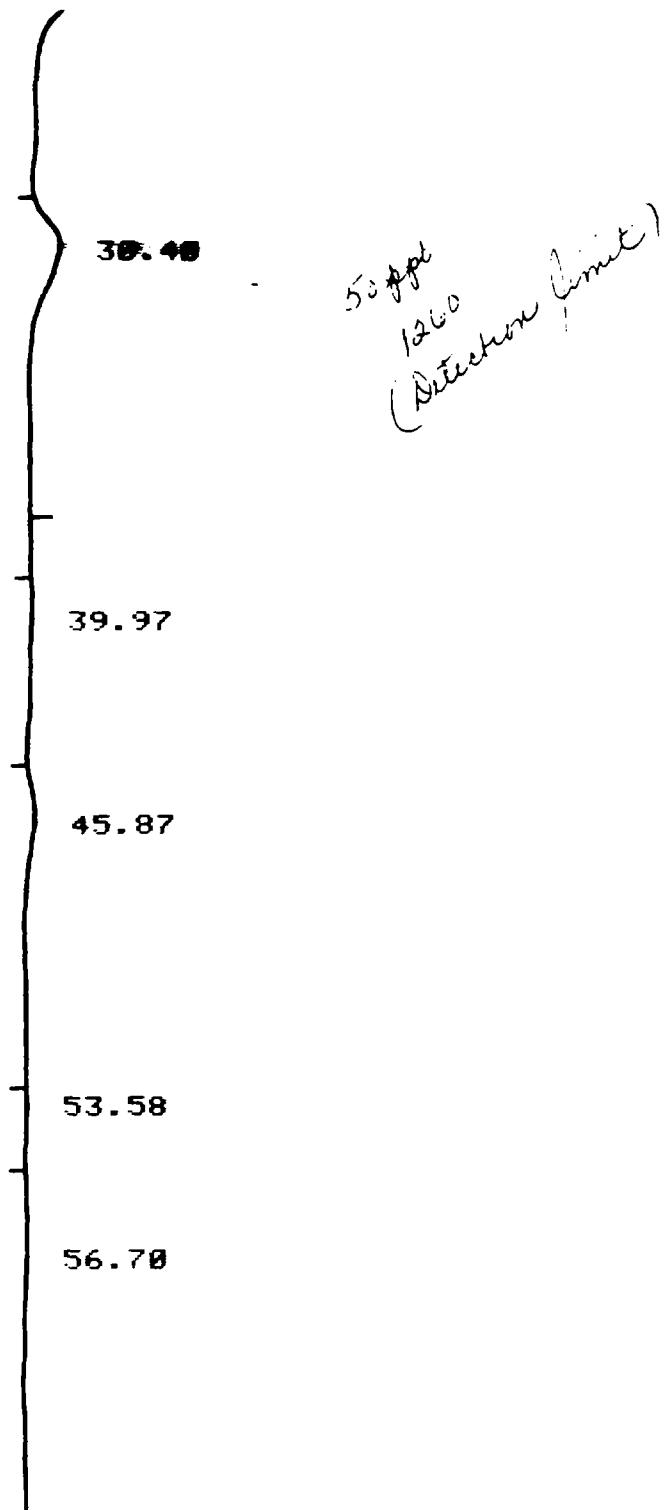
13.71

15.48

16.52

19.99

50 ppb 1260
Det. limit



HP RUN # 3 OCT/15/85 TIME 09:24:50
ID:111061 BOTTLE 83
AREA %

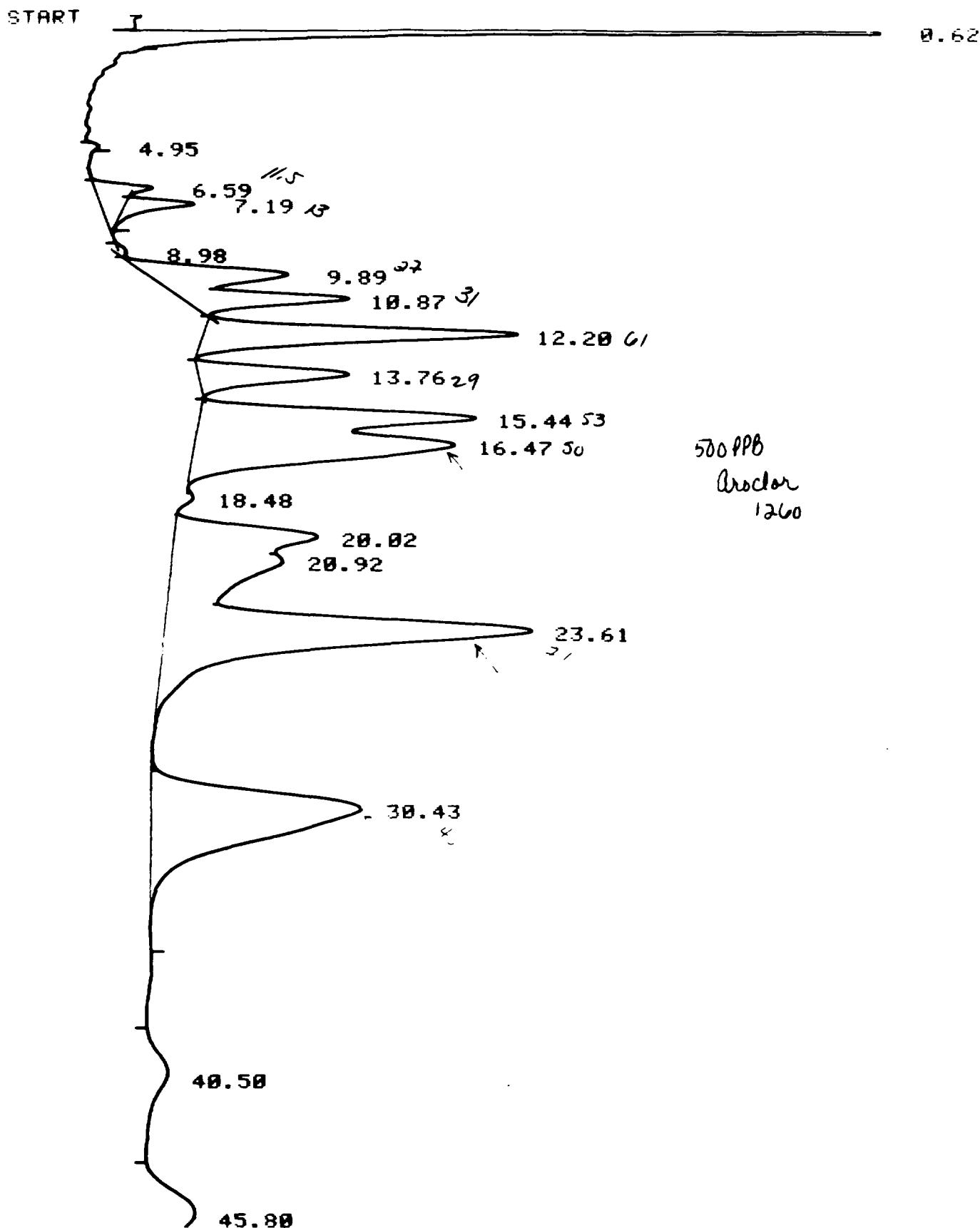
RT	AREA	AREA %
8.62	82080	100.000

DIL FACTOR: 1.0000 E+ 0

TEMP1	400	210	210
TIME1	65.00		
INJ TEMP	400	250	250
FID TEMP	400	250	250

AUX TEMP 400 250 250

CHT SPD 0.58
ZERO 15.0
ATTN 2↑ 5
AUX SGNL +8
SLP SENS 0.00 0.41
AREA REJ 50000
FLOW A 0.0 0.0
FLOW B 0.0 46.1



52.67
54.46
57.81

500 ppm
Acetone, 210°

HP RUN # 4 OCT/15/85 TIME 10:32:33
ID: 111061 BOTTLE 84
AREA %

RT	AREA	AREA %
8.62	83660	7.995
10.87	50510	4.827
12.20	108000	10.321
13.76	70980	6.783
15.44	96480	9.220
16.47	140000	13.380
20.02	66920	6.395
20.92	75720	7.236
23.61	202600	19.362
30.43	151500	14.479

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 210 210
TIME1 65.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

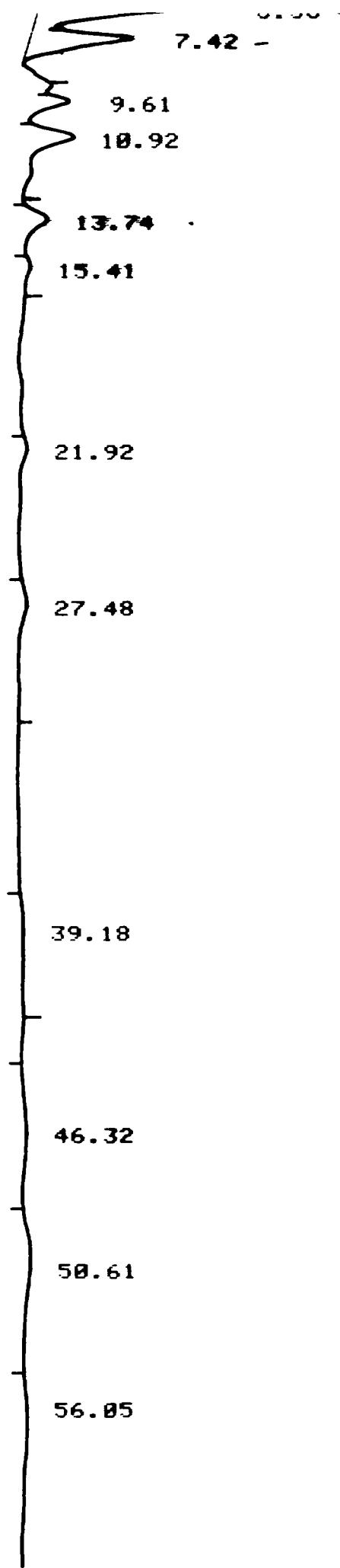
CHT SPD 0.50
ZERO 15.0
ATTN 2↑ 5
AUX SGNL +8
SLP SENS 0.00 0.42
AREA REJ 50000
FLOW A 0.0 0.0
FLOW B 0.0 46.1

TART

0.62

2.81 3.55
4.40-
5.44-

250 ppm
Acetone, 248



63.83

HP RUN # 5 OCT/15/85 TIME 11:40:58
ID:111061 BOTTLE 85
AREA %

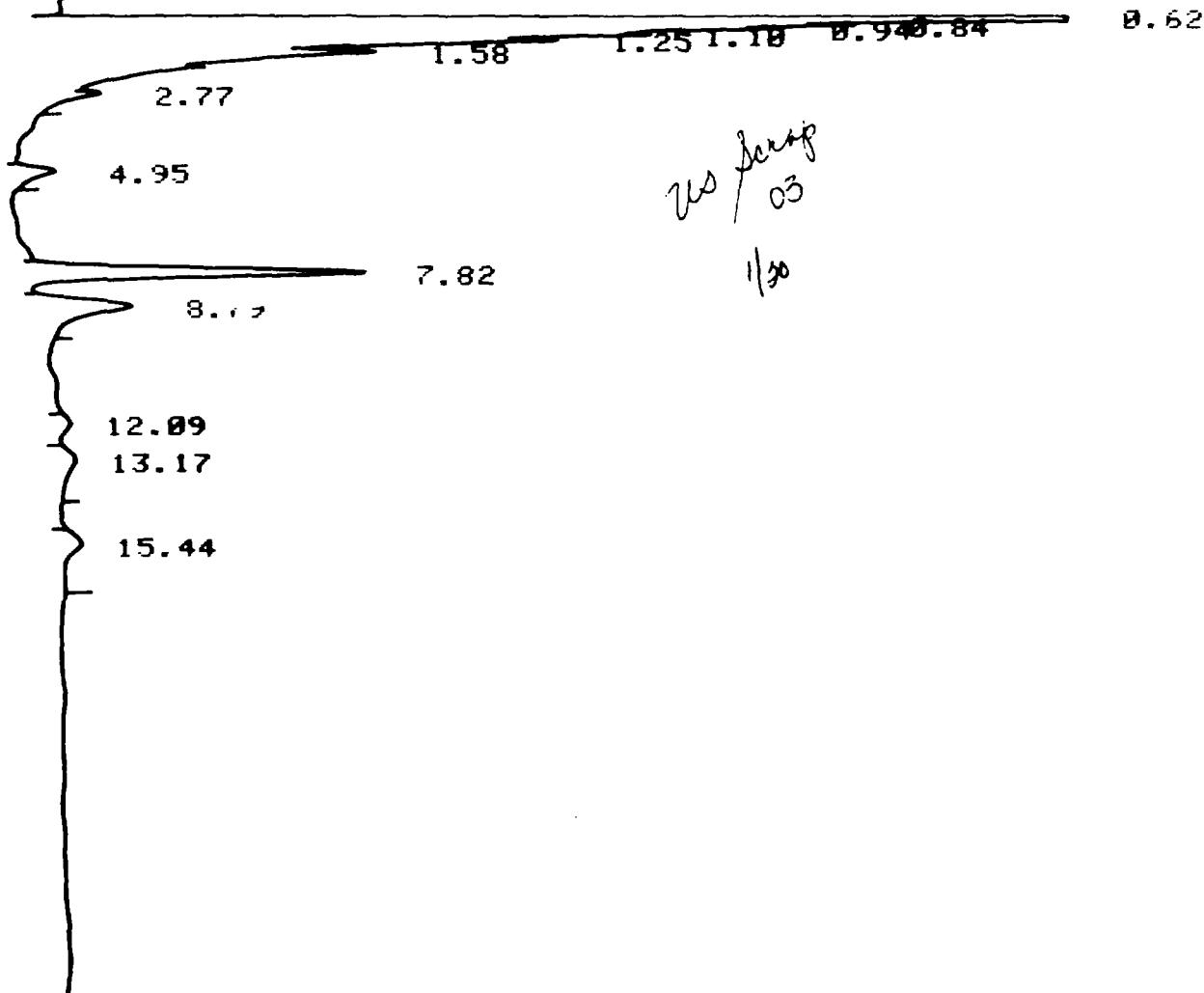
RT	AREA	AREA %
8.62	83980	100.000

DIL FACTOR: 1.0000 E+ 0

TEMP1 400 210 210
TIME1 65.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 0.50
ZERO 15.0
ATTN 2↑ 5
AUX SGNL +B
SLP SENS 0.00 0.38
AREA REJ 50000
FLOW A 0.0 0.0
FLOW B 0.0 46.1

START





Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET



WASTE PROFILE SHEET CODE

TSDR

F61874

A GENERAL INFORMATION

GENERATOR NAME: U.S. EPA

TRANSPORTER:

To Be Determined

ADDRESS: U.S. SCRAP

TRANSPORTER PHONE:

12300 S. COTTAGE GROVE

ILD 980679984

CHICAGO, IL

GENERATOR USEPA ID:

BRIAN D. LEE

GENERATOR STATE ID:

COMPOSITE 3,5,13

IL 312/886-6294

HARMLESS GENERATING WASTE:

WASTE SITE CLEANUP

B PHYSICAL CHARACTERISTICS OF WASTE

COLOR: BEIGE, Brown
BLACK

ODOR:

 NONE MILD STRONG

DESCRIBE:

NA

PHYSICAL STATE @ 70°F

 SOLID SEMI-SOLID LIQUID POWDER

LAYERS:

 MULTILAYERED BI-LAYERED SINGLE PHASED

FREE LIQUIDS:

 YES NO VOLUME < 2
 2-4
 4-6.0
 7 7.1-10
 10.1-12.5
 > 12.5
 EXACT 6.4 N/A SPECIFIC GRAVITY:
 < 1
 1.1-1.2
 1.3-1.4
 1.5-1.7
 1.8-1.9
 > 1.9 < 4
 4-12
 13-17
 > 17
 EXACT NA FLASH POINT:
 < 70°F
 70°F - 100°F
 101°F - 130°F
 140°F - 200°F > 200°F
 NO FLASH
 EXACT < 80°F CLOSED CUP
 OPEN CUP

C CHEMICAL COMPOSITION (TOTALS MUST ADD TO 100%)

ORGANIC SALTS 51%
PLASTICS 39%
VOLATILE ORGANICS 5%
WATER 5%

D METALS	TOTAL (PPM)	EPA EXTRACTION PROCEDURE (ppm)
ARSENIC (As)	20.3 mg/L	20.1 mg/L
BARIUM (Ba)	50.0 mg/L	50.5 mg/L
CADMIUM (Cd)	0.3 mg/L	0.3 mg/L
CHROMIUM (Cr)	0.5 mg/L	0.5 mg/L
MERCURY (Hg)	0.02 mg/L	0.02 mg/L
LEAD (Pb)	200 mg/L	200 mg/L
CHROMIUM-HEX (Cr + 6)	NA	NA

E OTHER COMPONENTS - TOTAL (PPM)
FIRE < 5.0 ppm
CYANIDES TOTAL 75 ppm
SULFIDES TOTAL 230 ppm

PCB'S

NA

PHENOLICS

11

D SHIPPING INFORMATION

IS IT HAZARDOUS MATERIAL? YES NO

PROPER SHIPPING NAME: FLAMMABLE Solids n.o.s.

HAZARD CLASS: FLAMMABLE Solids UN1325 RQ. I

METHOD OF SHIPMENT: BULK LIQUID BULK SOLID
 DRUM (TYPE/SIZE) 55 gal

ANTICIPATED VOLUME: 3 DRUMS GALS. OTHER

PER: ONE TIME WEEK MONTH
 QUARTER YEAR

F HAZARDOUS CHARACTERISTICS

REACTIVITY: NONE PYROPHORIC SHOCK SENSITIVE
 EXPLOSIVE WATER REACTIVE OTHER

OTHER HAZARDOUS CHARACTERISTICS:

 NONE RADIOACTIVE ETIOLOGICAL
 PESTICIDE MANUFACTURING WASTE OTHER IGNITABLE

USEPA HAZARDOUS WASTE?

YES

NO

USEPA HAZARDOUS CODE(S) 0008, 0001

STATE HAZARDOUS WASTE?

YES

NO

STATE CODE(S) 0008, 0001

G SPECIAL HANDLING INFORMATION
NOTICE REGARDING INFORMATION ATTACHED
IGL ASSOCIATES, INC.; 11499 CHESTER RD. CINCINNATI,
OH 45241, ATTN: PAUL REEDICK 513/782-8841 ADDITIONAL PAGE(S) ATTACHEDI HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OH
IMPLICATED HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE

TITLE

DATE

R. - 1 - 1

7-7-91



Chemical Waste Management, Inc.
Emelle Facility
PO Box 55
Emelle, Alabama 35459
205/652-9721

DATE 3/20/86

TO: Ray F Weston
6166 Dundee, Suite 150-1
Northbrook, IL 60062
Attn: Jim Gaines

WPS# COLFG1872

WASTE NAME _____

Flam solid

FROM: Pam Massey / Susan Stokes / Bob Hubert

On The above mentioned disposal application has been received by the Emelle Sales Lab. Any deficiencies noted must be resolved before any further action will be taken toward waste stream approval at Chemical Waste Management of Alabama. This must be resolved within thirty (30) days or the waste profile will be classed as outdated.

Until this information is received and approval granted, this waste stream cannot be scheduled into the site for disposal.

- Need completed Waste Profile Sheet.
- Waste Profile Sheet must be signed.
- Need completed Certification of Representative Sample.
- Need Representative Sample of waste.
- Need 100% components and their percentages.
- Other Need explanation of the generation of these items. Also a letter stating explaining the process at the generating location and how these came to be. Also a letter certifying the sample the analysis was done on was a representative ^{sample} of the waste stream.

All changes made to the Waste Profile Sheet must be signed and dated by the Generator.

LA/st



Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET

COL
TSOR

F61872

A GENERAL INFORMATION

GENERATOR NAME: U.S. EPA

TRANSPORTER: To Be Determined

MANUFACTURER ADDRESS: U.S. SCRAP

TRANSPORTER PHONE: IL D 9806 7998

12300 S. COTTAGE GROVE

GENERATOR USEPA I.D. IL D 9806 7998

TECHNICAL CONTACT: BRIAN COOPER

GENERATOR STATE I.D. IL D 9806 7998

NAME OF WASTE: FLAMMABLE SOLID

TITLE: On-Site Coordinator

PHONE: 312/886 6244

PROCESS GENERATING WASTE: WASTE SITE CLEANUP

B PHYSICAL CHARACTERISTICS OF WASTE

COLOR	ODOR	MILD		PHYSICAL STATE @ 70°F	LAYERS	FREE LIQUIDS	VOLUME L
		<input type="checkbox"/> NONE	<input type="checkbox"/> STRONG		<input checked="" type="checkbox"/> SEMI-SOLID	<input type="checkbox"/> MULTILAYERED	
BLACK	NA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> SOLID	<input type="checkbox"/> BI-LAYERED	<input type="checkbox"/>	<input checked="" type="checkbox"/> NO
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> LIQUID	<input type="checkbox"/> SINGLE PHASED	<input type="checkbox"/> YES	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> POWDER			
		<input checked="" type="checkbox"/> EXACT	22				
				<input type="checkbox"/> < 70°F	<input type="checkbox"/> > 200°F	<input checked="" type="checkbox"/> CLOSED CUP	
				<input checked="" type="checkbox"/> 70°F - 100°F	<input type="checkbox"/> NO FLASH	<input type="checkbox"/> OPEN CUP	
				<input type="checkbox"/> 101°F - 139°F	<input checked="" type="checkbox"/> EXACT 85°		
				<input type="checkbox"/> 140°F - 200°F			

C CHEMICAL COMPOSITION (TOTALS MUST ADD TO 100%)

INORGANIC SALTS	6%
PLASTICS	30%
VARNISH	35%
WATER	9%
VOLATILE ORGANICS	10%
Total sol. & H ₂ O	
Gulf Coast	500
Chicago	500
Orlando	500

D METALS	TOTAL (PPM)	EPA EXTRACTION PROCEDURE (mg/L)
ARSENIC (As)	≤ 0.3 mg/L	≤ 0.1 mg/L
BARIUM (Ba)	≤ 10 mg/L	≤ 0.5 mg/L
CADMIUM (Cd)	0.1 mg/L	0.6 mg/L
CHROMIUM (Cr)	≤ 0.5 mg/L	0.5 mg/L
MERCURY (Hg)	≤ 0.02 mg/L	0.5 mg/L
LEAD (Pb)	0.5 mg/L	0.5 mg/L
CHROMIUM-HEX (Cr + 6)	NA	NA

E OTHER COMPONENTS - TOTAL (PPM)	PCB'S
TOTAL 55 ppm	NA
CYANIDES REACTIVE 52 ppm	26 ppm
SULFIDES REACTIVE 25 ppm	26 ppm

F SHIPPING INFORMATION

HAZARDOUS MATERIAL? YES NO

PROPER SHIPPING NAME: FLAMMABLE SOLID, n.o.s.

HAZARD CLASS: FLAMMABLE SOLID I.D. NO. 1325 R.O.

METHOD OF SHIPMENT: BULK LIQUID BULK SOLID DRUM (TYPE/SIZE) 55 GAL

ANTICIPATED VOLUME: 1 DRUM GALS. 1 CUBIC YARDS

PER: ONE TIME WEEK MONTH
 QUARTER YEARREACTIVITY: NONE PYROPHORIC SHOCK SENSITIVE EXPLOSIVE WATER REACTIVE OTHER

OTHER HAZARDOUS CHARACTERISTICS:

 NONE RADIOACTIVE ETIOLOGICAL
 PESTICIDE MANUFACTURING WASTE OTHER IGNITABLEUSEPA HAZARDOUS WASTE? YES NO

USEPA HAZARDOUS CODE(S) 001

STATE HAZARDOUS WASTE? YES NO

STATE CODE(S)

SPECIAL HANDLING INFORMATION: CONTACT REGARDING TRANSPORTATION ISSUES
PEI ASSOCIATES 11499 CHESTER RD. CINCINNATI, OH 45246
ATTN: PAUL KEEFNER 513/782-4841 ADDITIONAL PAGE(S) ATTACHED

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED

AUTHORIZED SIGNATURE

TITLE

DATE

Brian C. Cooper JSC

2-7-86

EXHIBIT B



SUPPLEMENTAL INFORMATION DOCUMENT: NUMBER 3-054-86

This Document supplements, and is part of, that certain "Waste Disposal Agreement", (hereinafter "the Agreement"), entered into by and between P.E.I. ASSOCIATES, (hereinafter "P.E.I. ASSOCIATES"), and CHEMICAL WASTE MANAGEMENT, INC., (hereinafter "the Disposer"), on May 29, 1985. The provisions of this Document shall be incorporated into the Agreement.

1. DESCRIPTION OF WASTE MATERIALS. The "Waste Materials", to which the Agreement refers, are as described in the "Generator's Waste Material Profile Sheet", Code Designation COL F61865, attached hereto and made part hereof.

Containers are to be provided by _____ according to the following specifications:

DOT approved containers to be properly labeled according to EPA Regulations.

2. TENDER OF WASTE MATERIALS. P.E.I. ASSOCIATES shall deliver the above Waste Materials to Disposer as follows:

(a) Quantity of Waste Materials to be Tendered Over Term.

(1) Estimated.

As indicated on attached Profile sheet

(2) Guaranteed (if applicable).

Not Applicable

(b) Maximum/Minimum Quantity of Waste Materials Per Tender
(if tendered in installments).

Not Applicable

(c) Place of Tender.

Chemical Waste Management, Inc.
Highway 17 @ Milemarker #163
Emelle, Alabama 35459

(d) Time and Frequency of Tender.

To be mutually agreed upon between Transporter and Disposer

(e) Manner of Tender (including notification to Disposer):

To be mutually agreed upon between Generator and Transporter

3. STORAGE FACILITY. Disposer shall store the Waste Materials at the following storage facility for a period not to exceed _____ days, from which facility the Waste Materials will then be removed to the Disposal Facility:

- (a) Name/Address of Storage Facility:
Not Applicable
- (b) Name/Address of Facility Permittee:
Not Applicable
- (c) Permit Number(s)/Initiation and Termination Date(s):
Not Applicable
- (d) Permitting Authority(ies):
Not Applicable

4. DISPOSAL FACILITY. Disposer shall dispose of the above Waste Materials at the following disposal facility (or facilities):

- (a) Name/Address of Disposal Facility (Facilities):
Chemical Waste Management, Inc.
Highway 17 @ Milemarker #163
Emelle, Alabama 35459
- (b) Name/Address of Facility Permittee:
Same as (a) above
- (c) Permit Number(s)/Initiation and Termination Date(s):
Site # 9011190001
US EPA ID # ALD000622464
- (d) Permitting Authority(ies):
Division of Solid Waste & Vector Control
Dept of Public Health
State Office Building
Montgomery, AL 36130

5. DISPOSAL METHODS: Disposer shall utilize one or more of the following methods for the disposal of the Waste Materials:

Drum decanting, liquid solidification and burial in a secure chemical landfill.

6. EMERGENCY SERVICES: Disposer shall provide emergency storage or disposal services, with respect to the above Waste Materials, pursuant to the following:

Not applicable

7. RECLAMATION AND/OR SALE OF WASTE MATERIALS: Disposer is authorized to reclaim, recover and sell, distribute or use the Waste Materials, their components or residues as follows:

Not Applicable

8. COMPENSATION. The Transporter shall compensate Disposer as follows:

(a) For Storage and Disposal of Waste Materials.
Not Applicable

(b) For Disposal of Waste Materials Only.
DISPOSAL: \$65.00 PER CUBIC YARD

PLUS APPLICABLE STATE, FEDERAL AND LOCAL TAXES

(c) Emergency Services.
Not Applicable

(d) Measurement of Waste Materials. Waste Materials shall be measured by Disposer for the purpose of computing fees hereunder, at the time and place, and in the manner, as follows:

Per the amount listed on the manifest. Amount is subject to physical verification and Disposer's personnel. Discrepancies will be resolved prior to final acceptance.

(e) P.E.I.'S Billing Address. Disposer shall submit its statements to:

P.E.I. ASSOCIATES
11499 Chester Road
Cincinnati, OH 45246-0100
Attn: Mike Hessling/Paul Kefauver

(f) Disposer Billing Address. Disposer will issue its billings from the following:

Chemical Waste Management, Inc.
Highway 17 @ Milemarker #163
Emelle, Alabama 35459

(g) Fees Subject to Change. Fees specified in subsections (a) - (c) above may be changed by Disposer upon thirty (30) days written notice to Transporter.

9. TERM. The term of the Agreement, with respect to the Waste Materials covered in this document, shall be as follows: (If provision is to be made for termination without cause, upon written notice, insert such provisions below the term of the Agreement).

The term of this agreement will be in effect from the date signed below to the decision expiration date of 2-19-87. May be terminated by either party with 30 day written notification.

10. LAW TO GOVERN. The Agreement and this Supplemental Information Document shall be governed and construed in accordance with the laws of Alabama.

11. MISCELLANEOUS CONDITIONS
DOT APPROVED CONTAINERS
O.K. IN BULK SOLID

By their signatures hereto, the parties agree that this Supplemental Information Document shall be considered an attachment to, and part of, that certain "Waste Disposal Agreement" identified above.

Date: _____

P.E.I. ASSOCIATES

By: _____

Title: _____

CHEMICAL WASTE MANAGEMENT, INC.

By: _____

Walter Watson

Title: Sales Manager - Northern Region

/sw/Joe Keller/Alabama



Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET

COL
TSDF

F61865

A. GENERAL INFORMATION

GENERATOR NAME: U.S. EPA
 GENERATOR ADDRESS: U.S. SCRAP
 12300 S. COTTAGE GROVE
 CHICAGO IL
 TECHNICAL CONTACT: BRIAN WO
 TIME OF WASTE: CRUSHED DRUMS
 PROCESS GENERATING WASTE: WASTE SITE CLEANUP

TRANSPORTER:

TO BE DETERMINED

TRANSPORTER PHONE:

GENERATOR USEPA ID:

ILD980679484

GENERATOR STATE ID:

36086-6246

B. PHYSICAL CHARACTERISTICS OF WASTE

COLOR	ODOR	<input type="checkbox"/> NONE	<input type="checkbox"/> MILD	PHYSICAL STATE @ 70°F	LAYERS	FREE LIQUIDS
NA	<input type="checkbox"/> STRONG	<input checked="" type="checkbox"/> NA		<input checked="" type="checkbox"/> SOLID	<input type="checkbox"/> MULTILAYERED	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
	DESCRIBE	NA		<input type="checkbox"/> LIQUID	<input type="checkbox"/> SEMI-SOLID	
				<input type="checkbox"/> POWDER	<input type="checkbox"/> BI-LAYERED	
					<input checked="" type="checkbox"/> SINGLE PHASED	VOLUME %
1. <input type="checkbox"/> < 2	<input type="checkbox"/> 7.1-10	<input checked="" type="checkbox"/> NA	SPECIFIC GRAVITY	<input type="checkbox"/> < .8	<input type="checkbox"/> < 70°F	<input type="checkbox"/> > 200°F
<input type="checkbox"/> 2-4	<input type="checkbox"/> 10.1-12.5			<input type="checkbox"/> .8-.10	<input type="checkbox"/> 70°F - 100°F	<input type="checkbox"/> CLOSED CUP
<input type="checkbox"/> 4.1-6.9	<input type="checkbox"/> > 12.5			<input type="checkbox"/> 1.1-1.2	<input type="checkbox"/> 101°F - 139°F	<input type="checkbox"/> OPEN CUP
<input type="checkbox"/> 7	<input type="checkbox"/> EXACT			<input type="checkbox"/> EXACT NA	<input type="checkbox"/> EXACT NA	
					<input type="checkbox"/> 140°F - 200°F	

C. CHEMICAL COMPOSITION (TOTAL MUST ADD TO 100%)

CRUSHED DRUMS DEBRIS 100%		D. METALS	EPA EXTRACTION PROCEDURE (WILL)
1. <input type="checkbox"/> contained		ARSENIC (As) <input type="checkbox"/> NA	SELENIUM (Se) <input type="checkbox"/> NA
2. <input type="checkbox"/> soluble B)		BARIUM (Ba) <input type="checkbox"/> NA	SILVER (Ag) <input type="checkbox"/> NA
		CADMIUM (Cd) <input type="checkbox"/> NA	COPPER (Cu) <input type="checkbox"/> NA
		CHROMIUM (Cr) <input type="checkbox"/> NA	NICKEL (Ni) <input type="checkbox"/> NA
		MERCURY (Hg) <input type="checkbox"/> NA	ZINC (Zn) <input type="checkbox"/> NA
		LEAD (Pb) <input type="checkbox"/> NA	THALLIUM (Tl) <input type="checkbox"/> NA
		CHROMIUM-HEX (Cr + 6) <input type="checkbox"/> NA	
E. OTHER COMPONENTS TOTAL (PPM)		P.C.B.'S	PHENOLICS
1. <input type="checkbox"/> CYANIDES		<input type="checkbox"/> NA	<input type="checkbox"/> NA
2. <input type="checkbox"/> SULFIDES		<input type="checkbox"/> NA	<input type="checkbox"/> NA

SHIPPING INFORMATION

I. HAZARDOUS MATERIAL?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	REACTIVITY: <input checked="" type="checkbox"/> NONE	<input type="checkbox"/> PYROPHORIC	<input type="checkbox"/> SHOCK SENSITIVE
PROPER SHIPPING NAME:	HAZARDOUS WASTE SOLIDS		<input type="checkbox"/> EXPLOSIVE	<input type="checkbox"/> WATER REACTIVE	<input type="checkbox"/> OTHER
HAZARD CLASS:	ORM-C	I.D. NO. NA 9182 R.Q. I.	<input checked="" type="checkbox"/> NONE	<input type="checkbox"/> RADIOACTIVE	<input type="checkbox"/> ETIOLOGICAL
METHOD OF SHIPMENT:	<input type="checkbox"/> BULK LIQUID	<input checked="" type="checkbox"/> BULK SOLID	<input type="checkbox"/> PESTICIDE MANUFACTURING WASTE	<input type="checkbox"/> OTHER	
	<input type="checkbox"/> DRUM (TYPE/SIZE)		USEPA HAZARDOUS WASTE?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
ANTICIPATED VOLUME	GALS.	20	USEPA HAZARDOUS CODE(S)		
PER	<input checked="" type="checkbox"/> ONE TIME	<input type="checkbox"/> WEEK	STATE HAZARDOUS WASTE?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	<input type="checkbox"/> QUARTER	<input type="checkbox"/> YEAR	STATE CODE(S)		

II. SPECIAL HANDLING INFORMATION CONTACT REGARDING INFORMATION & SHIPPING
 PEI ASSOCIATES, INC.; 11499 CHESTER RD; CINCINNATI, OH 45246
 ATTN: PAUL KEFAUVER 513/782-4841 ADDITIONAL PAGE(S) ATTACHED

I CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR
 PERTINENT HAZARDS HAVE BEEN DISCLOSED.

AUTHORIZED SIGNATURE

per Stone

TITLE 219/86

DATE

Bruce C. Johnson ASC 2-7-86

SALES

CODE

COL

F61862

WASTE PROFILE SHEET CODE

CERTIFICATION OF REPRESENTATIVE SAMPLE

GENERAL DIRECTIONS: IN ORDER TO DETERMINE WHETHER WE CAN ACCEPT THE SPECIAL WASTE DESCRIBED IN THE ABOVE NUMBERED PROFILE SHEET, WE MUST OBTAIN A REPRESENTATIVE SAMPLE OF THE WASTE. WE WILL ANALYZE THE SAMPLE TO VERIFY THE INFORMATION YOU HAVE PROVIDED US. SO IT IS PARTICULARLY IMPORTANT THAT THE SAMPLE BE TRULY REPRESENTATIVE. IN MOST CIRCUMSTANCES YOU WILL BE OBTAINING THE SAMPLE. HOWEVER, IN THOSE CASES IN WHICH WE OBTAIN THE SAMPLE, WE MUST ASK THAT ONE OF YOUR EMPLOYEES BE PRESENT TO DIRECT THE PARTICULAR SOURCE TO BE SAMPLED AND TO WITNESS THE SAMPLING. IN SUCH CASE, YOUR EMPLOYEE MUST SIGN THIS CERTIFICATION AS A WITNESS.

THIS CERTIFICATION MUST BE RETURNED, WITH THE REPRESENTATIVE WASTE SAMPLE, TO:



Note - a representative waste sample has not been sent to
CWM because the enclosed chemical waste analysis was performed
by a CWM-approved laboratory.

THE UNDERSIGNED CERTIFIES THAT HE/SHE OBTAINED A REPRESENTATIVE SAMPLE OF THE WASTE MATERIAL DESCRIBED IN THE "GENERATOR'S WASTE MATERIAL PROFILE SHEET" ABOVE REFERENCED, AND THAT THE FOLLOWING REPRESENTATIONS ARE TRUE AND CORRECT:

1. HOUR AND DATE OF SAMPLING: _____
2. SOURCE FROM WHICH SAMPLE TAKEN: _____
3. EQUIPMENT AND SAMPLING METHOD USED: _____

4. AMOUNT OF SAMPLE OBTAINED: _____
5. TYPE OF CONTAINER INTO WHICH SAMPLE WAS PLACED: _____
6. THE SAMPLING EQUIPMENT USED, AND THE CONTAINER INTO WHICH THE SAMPLE WAS PLACED, WERE THEMSELVES UNCONTAMINATED BEFORE USE.
7. AT THE TIME OF SAMPLING I AFFIXED A LABEL TO THE CONTAINER IN THE FOLLOWING FORM WITH THE FOLLOWING INFORMATION (FILL IN THIS PORTION, INCLUDING YOUR SIGNATURE, JUST AS IT APPEARS ON THE LABEL YOU PREPARED):

GENERATOR:
WASTE NAME:
SAMPLE HOUR/DATE:
PROFILE SHEET CODE:
SAMPLER SIGNATURE:

WITNESS VERIFICATION: I WAS PERSONALLY PRESENT DURING THE SAMPLING DESCRIBED; I DIRECTED THE WASTE SOURCE TO BE SAMPLED; AND I VERIFY THE INFORMATION ABOVE NOTED.

WITNESS: _____

SIGNATURE: _____

TITLE: _____

EMPLOYER: _____

DATE: _____

SAMPLER NAME: _____

SIGNATURE: _____

TITLE: _____

EMPLOYER: _____

DATE: _____

SCA CHEMICAL SERVICES, INC.
P. O. BOX 200
1550 BALMER RD.
MODEL CITY, NY 14102

PEI ASSOCIATES, INC.
(FORMERLY PEDCO ENVIRONMENTAL, INC.)

February 25, 1986

11499 CHESTER ROAD
CINCINNATI, OHIO 45246
(513) 782-4700
TELECOPIER (513) 782-4807

Dr. Briand Wu
U.S. Environmental Protection Agency
Waste Management Division
230 S. Dearborn (5-HR)
Chicago, IL 60604

Subject: EPA Contract No. 68-01-6894
Delivery Order No. 6894-05-050
U.S. Scrap - Chicago, IL

Dear Briand:

Please find enclosed a "Certification of Representative Sample" for material at the U.S. Scrap site. This blank certification was returned to me from CWM - SCA Model City for completion. Please have the individuals who originally sampled the soil in the roll off boxes complete this form. Forward the completed form to:

SCA Chemical Services, Inc.
Model City Facility
1550 Balmer Road
Model City, NY 14107
ATTN: Mr. Bill Beck

In order to assist you in the completion of this form I have also enclosed a copy of the waste profile sheets as submitted to the SCA - Model City facility.

Your assistance in this matter is greatly appreciated. If you have any questions, please contact me at 513/782-4841.

Very truly yours,

PEI ASSOCIATES, INC.

Paul C. Kefauver

Paul C. Kefauver
Disposal Coordinator

PCK/mes

Enclosure

cc: G. Regan, U.S. EPA
B. Bowden, U.S. EPA

BRANCH OFFICES

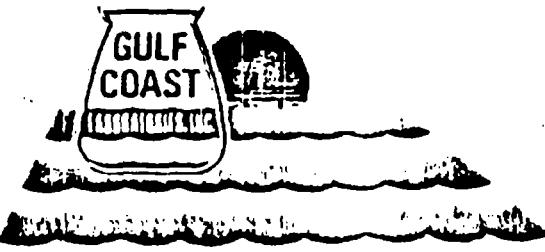
CHESTER TOWERS

DALLAS, TEXAS
DENVER, COLORADO

KANSAS CITY, KANSAS

COLUMBUS, OHIO
DURHAM, NORTH CAROLINA





GULF COAST LABORATORIES, INC.

2417 Bond St., Park Forest South, Illinois 60468

Phone# (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

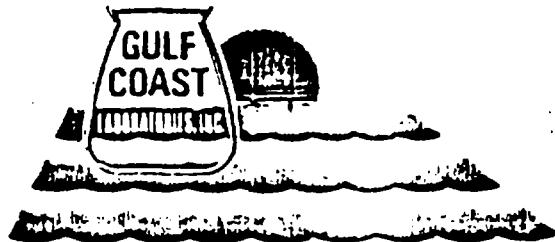
TO: Pedco Environmental
11499 Chester Road
Cincinnati, OH 45246

ATTN: Mr. Paul Kefauver

DATE: December 30, 1985

RE: U.S. Scrap 3018-P18 Soil
⁴⁰⁶⁴⁶⁵ From 6 Vottore CS#1 5428532
Sample Date: 12/06/85
GCL# 75006

PARAMETERS	RESULTS
Arsenic, E.P. Toxicity	< 0.5 mg/l
Barium, E.P. Toxicity	< 10 mg/l
Cadmium, E.P. Toxicity	< 0.1 mg/l
Chromium, E.P. Toxicity	< 0.5 mg/l
Copper, E.P. Toxicity	< 0.5 mg/l
Lead, E.P. Toxicity	< 0.5 mg/l
Mercury, E.P. Toxicity	< 0.02 mg/l
Nickel, E.P. Toxicity	< 0.5 mg/l
Selenium, E.P. Toxicity	< 0.1 mg/l
Silver, E.P. Toxicity	< 0.5 mg/l
Zinc, E.P. Toxicity	4.8 mg/l



GULF COAST LABORATORIES, INC.

2417 Bond St., Park Forest South, Illinois 60466

Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: Pedco Environmental
11499 Chester Road
Cincinnati, OH 45246

ATTN: Mr. Paul Kefauver

DATE: December 30, 1985

RE: U.S. Scrap 3018-P18 Soil
From 6 Vellofts ^{Kelco Corp} CSM#1 54285322
Sample Date: 12/06/85
GCL# 75006

PARAMETERS	RESULTS
Alkalinity	1.5 %
Ash	70.4 %
Total Cyanides	< 5.0 mg/kg
Reactive Cyanides	< 5.0 mg/kg
Flash Point (Closed Cup) *	> 200 oF
pH	8.2
Phenol	9.0 mg/kg
Total Sulfides	140 mg/kg
Reactive Sulfides	80 mg/kg
Total Solids	80.1 %
Reactivity Air	Passes
Reactivity Acid	Hydrogen Sulfide Produced
Reactivity Base	Passes
Reactivity Water	Passes

* Ethylene Glycol Added

John Bourdeau



Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET

WASTE PROFILE SHEET CODE

COL
TSDF

F61862

A GENERAL INFORMATION

GENERATOR NAME: U.S. EPY
 TRANSPORTER: To BE DETERMINED

FACILITY ADDRESS: U.S. SCRAP
 12300 S. COTTAGE GROVE
 CHICAGO, IL

TECHNICAL CONTACT: BRIAN'S WASTE TITLE: ON SITE COORDINATOR
 NAME OF WASTE: SOIL PHONE: 312/886-6246

PROCESS GENERATING WASTE: WASTE SITE CLEANUP

B PHYSICAL CHARACTERISTICS OF WASTE

COLOR: Brown	ODOR: <input type="checkbox"/> NONE <input checked="" type="checkbox"/> MILD <input type="checkbox"/> STRONG	PHYSICAL STATE @ 70°F: <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> SEMI-SOLID <input type="checkbox"/> LIQUID <input type="checkbox"/> POWDER	LAYERS: <input type="checkbox"/> MULTILAYERED <input type="checkbox"/> BI-LAYERED <input checked="" type="checkbox"/> SINGLE PHASED	FREE LIQUIDS: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
UNUSUAL:				VOLUME L %
pH: <input type="checkbox"/> < 2 <input checked="" type="checkbox"/> 7.1-10 <input type="checkbox"/> N/A	SPECIFIC GRAVITY: <input type="checkbox"/> < .8 <input type="checkbox"/> 1.3-1.4 <input type="checkbox"/> .8-.10 <input type="checkbox"/> 1.5-1.7 <input type="checkbox"/> 1.1-1.2 <input type="checkbox"/> > 1.7 <input type="checkbox"/> EXACT NA	FLASH POINT: <input type="checkbox"/> < 70°F <input checked="" type="checkbox"/> > 200°F <input type="checkbox"/> 70°F-100°F <input type="checkbox"/> NO FLASH <input type="checkbox"/> 101°F-139°F <input type="checkbox"/> EXACT <input type="checkbox"/> 140°F-200°F		CLOSED CUP <input checked="" type="checkbox"/> OPEN CUP <input type="checkbox"/>
<input type="checkbox"/> 24 <input type="checkbox"/> 4.1-6.9 <input type="checkbox"/> 7				

C CHEMICAL COMPOSITION (TOTALS MUST ADD TO 100%)

SOIL 99-100%
 SULFIDES 1%
 OTHER 0%
 TOTAL 100%

D METALS: TOTAL (PPM) EPA EXTRACTION PROCEDURE (mg/L)

ARSENIC (As)	< 0.5 mg/L	SELENIUM (Se)	< 0.1 mg/L
BARIUM (Ba)	< 10 mg/L	SILVER (Ag)	< 0.5 mg/L
CADMIUM (Cd)	< 0.1 mg/L	COPPER (Cu)	< 0.5 mg/L
CHROMIUM (Cr)	< 0.5 mg/L	NICKEL (Ni)	< 0.5 mg/L
MERCURY (Hg)	< 0.02 mg/L	ZINC (Zn)	4.8 mg/L
LEAD (Pb)	< 0.5 mg/L	THALLIUM (Tl)	NA
CHROMIUM-HEX (Cr + 6)	NA		

E OTHER COMPONENTS: TOTAL (PPM)
 TOTAL 25 mg/kg
 CYANIDES REACTIVE < 5 mg/kg
 TOTAL 140 mg/kg
 SULFIDES REACTIVE 90-94%
 PCB'S NA
 PHENOLICS 9.0 mg/kg

F SHIPPING INFORMATION

D.O.T. HAZARDOUS MATERIAL? YES NO
 PROPER SHIPPING NAME: HAZARDOUS
 HAZARD CLASS: DR11-E I.D. NO. MI 1189 R.Q.
 METHOD OF SHIPMENT: BULK LIQUID BULK SOLID
 DRUM (TYPE/SIZE)

ANTICIPATED VOLUME: 80 GALS. CUBIC YARDS
 OTHER
 PER: ONE TIME WEEK MONTH
 QUARTER YEAR

G HAZARDOUS CHARACTERISTICS:
 REACTIVITY: NONE PYROPHORIC SHOCK SENSITIVE
 EXPLOSIVE WATER REACTIVE OTHER ACID REACTIVE
 OTHER HAZARDOUS CHARACTERISTICS:
 NONE RADIOACTIVE ETIOLOGICAL
 PESTICIDE MANUFACTURING WASTE OTHER
 USEPA HAZARDOUS WASTE? YES NO
 USEPA HAZARDOUS CODE(S) 1023
 STATE HAZARDOUS WASTE? YES NO
 STATE CODE(S)

H SPECIAL HANDLING INFORMATION (CONTINUED RECORDING INFORMATION & BILLING)
 PET ASSOCIATES INC.; 11499 CHESTER RD.; AKRON, OH 44324
 ATTN: PAUL KEFLAUER 513/782-4841 ADDITIONAL PAGE(S) ATTACHED

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED
 AUTHORIZED SIGNATURE

TITLE

DATE

CERTIFICATION OF REPRESENTATIVE SAMPLE

GENERAL DIRECTIONS: IN ORDER TO DETERMINE WHETHER WE CAN ACCEPT THE SPECIAL WASTE DESCRIBED IN THE ABOVE NUMBERED PROFILE SHEET, WE MUST OBTAIN A REPRESENTATIVE SAMPLE OF THE WASTE. WE WILL ANALYZE THE SAMPLE TO VERIFY THE INFORMATION YOU HAVE PROVIDED US, SO IT IS PARTICULARLY IMPORTANT THAT THE SAMPLE BE TRULY REPRESENTATIVE. IN MOST CIRCUMSTANCES YOU WILL BE OBTAINING THE SAMPLE. HOWEVER, IN THOSE CASES IN WHICH WE OBTAIN THE SAMPLE, WE MUST ASK THAT ONE OF YOUR EMPLOYEES BE PRESENT TO DIRECT THE PARTICULAR SOURCE TO BE SAMPLED AND TO WITNESS THE SAMPLING. IN SUCH CASE, YOUR EMPLOYEE MUST SIGN THIS CERTIFICATION AS A WITNESS.

THIS CERTIFICATION MUST BE RETURNED, WITH THE REPRESENTATIVE WASTE SAMPLE, TO:



*Note - a representative waste sample has not been sent to
CWM because the enclosed chemical waste analysis was performed
by a CWM-approved laboratory.*

THE UNDERSIGNED CERTIFIES THAT HE/SHE OBTAINED A REPRESENTATIVE SAMPLE OF THE WASTE MATERIAL DESCRIBED IN THE "GENERATOR'S WASTE MATERIAL PROFILE SHEET" ABOVE REFERENCED, AND THAT THE FOLLOWING REPRESENTATIONS ARE TRUE AND CORRECT:

1. HOUR AND DATE OF SAMPLING: _____
2. SOURCE FROM WHICH SAMPLE TAKEN: _____
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4. AMOUNT OF SAMPLE OBTAINED: _____
5. TYPE OF CONTAINER INTO WHICH SAMPLE WAS PLACED: _____
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GENERATOR:
WASTE NAME:
SAMPLE HOUR/DATE:
PROFILE SHEET CODE:
SAMPLER SIGNATURE:

WITNESS VERIFICATION: I WAS PERSONALLY PRESENT DURING THE SAMPLING DESCRIBED; I DIRECTED THE WASTE SOURCE TO BE SAMPLED; AND I VERIFY THE INFORMATION ABOVE NOTED.

SAMPLER NAME: _____

SIGNATURE: _____

WITNESS: _____

TITLE: _____

SIGNATURE: _____

EMPLOYER: _____

TITLE: _____

DATE: _____

EMPLOYER: _____

SCA CHEMICAL SERVICES, INC.
P. O. BOX 200
1550 BALMER RD.
MODEL CITY, NY 14107

DATE: _____



ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

January 24, 1986

Mr. Brian Wu, O.S.C.
U.S. Environmental Protection Agency
230 S. Dearborn St.
Chicago, IL 60604

Re: U.S. Scrap Air Analysis
TDD: R5-8510-08 WST: IL 0197

Dear Mr. Wu:

Thank you for forwarding to me the analysis results of the air samples collected by our firm at the U.S. Scrap site on October 11, 1985. As you are well aware, air samples were collected by two separate methods. One set of integrated samples were collected by absorption onto charcoal tubes and analyzed by Gulf Coast Laboratories, Inc. using Gas Chromatography. A second set of grab samples were collected in gas sampling bags and analyzed by ERT/TAT, using Gas Chromatography and Mass Spectrometry.

Review of the charcoal tube data indicates that all parameters analyzed for had concentrations below the detection limit of the analytical procedure, 1 mg/tube. Therefore, no evaluations can be made from this data.

The preliminary test results of the gas sampling bag analysis indicates concentrations of three target compounds (Toluene, Ethylbenzene, Xylenes) in the background sample (USS 1011-A), and two downwind samples (USS 1011-B and 1011-C), in the part per billion range. However, because the downwind samples are not significantly greater than the background sample, the assumption that the downwind concentrations detected originated from the U.S. Scrap site cannot be made. Also, the positive identification of these same compounds in the field blank hinders the usefulness of the data. I presume that any final test results for these samples will be evaluated similarly.

If you have any questions concerning this report, please give me a call at (312) 663-9415. Also, I would appreciate receiving a copy of any additional reports you may receive on the analysis of these samples.

Sincerely,

Robert K. McKinley

70S:4F

REFERENCE SOIL TEMPERATURE LOCATIONS

R1 = 1 foot
R2 = 2 feet
R3 = 3 feet

B **R₃** **R₁** **B** **R₃** **R₁** **B** **R₃** **R₁** **B**

C _____ **c** _____

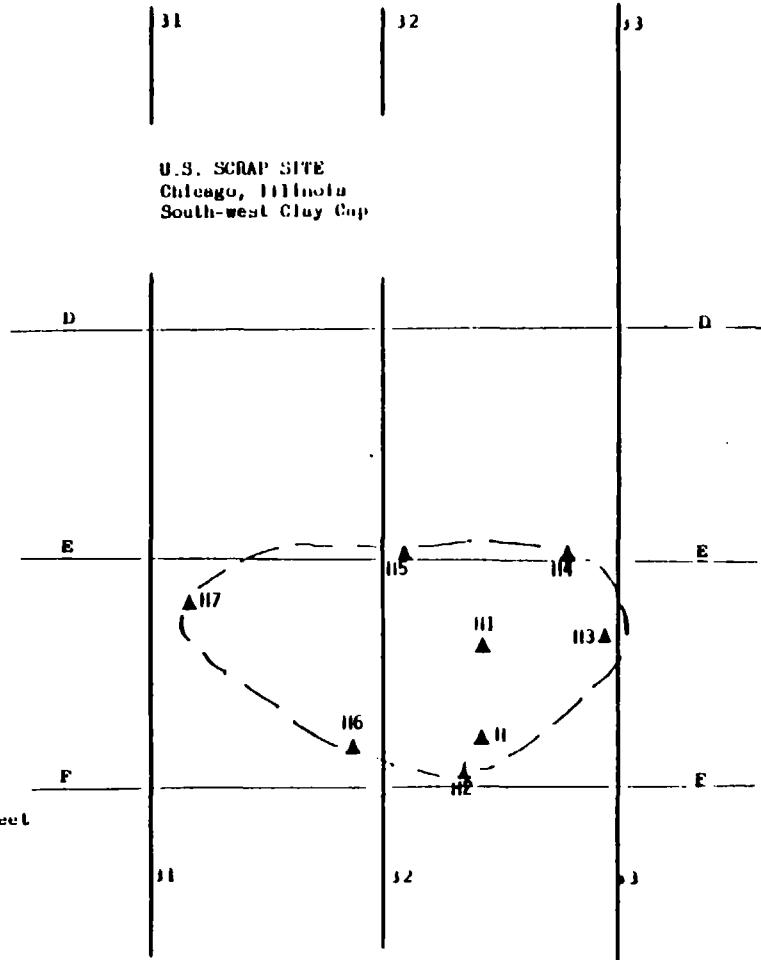
DATE :

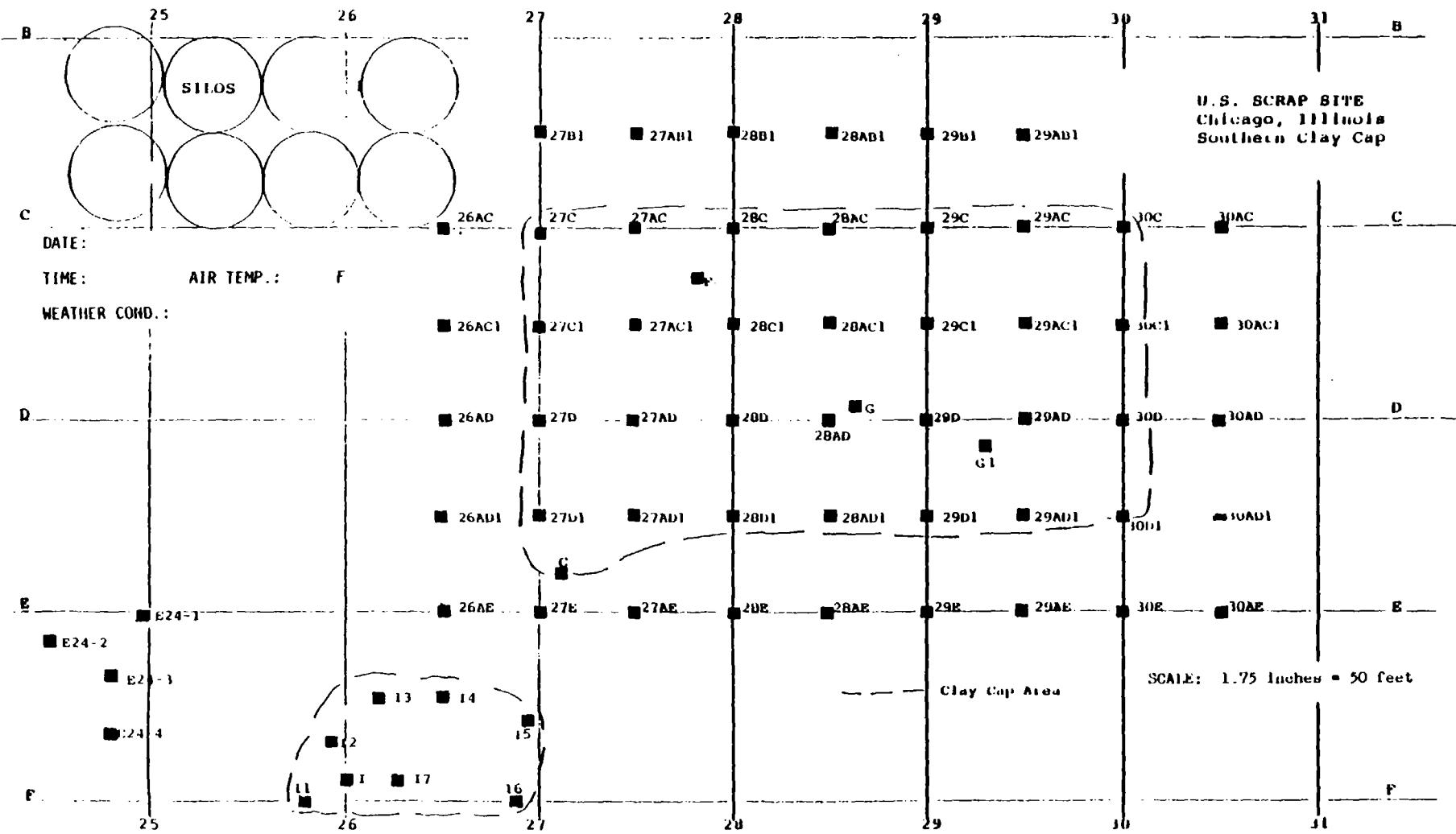
TIME: AIR TEMP.: +

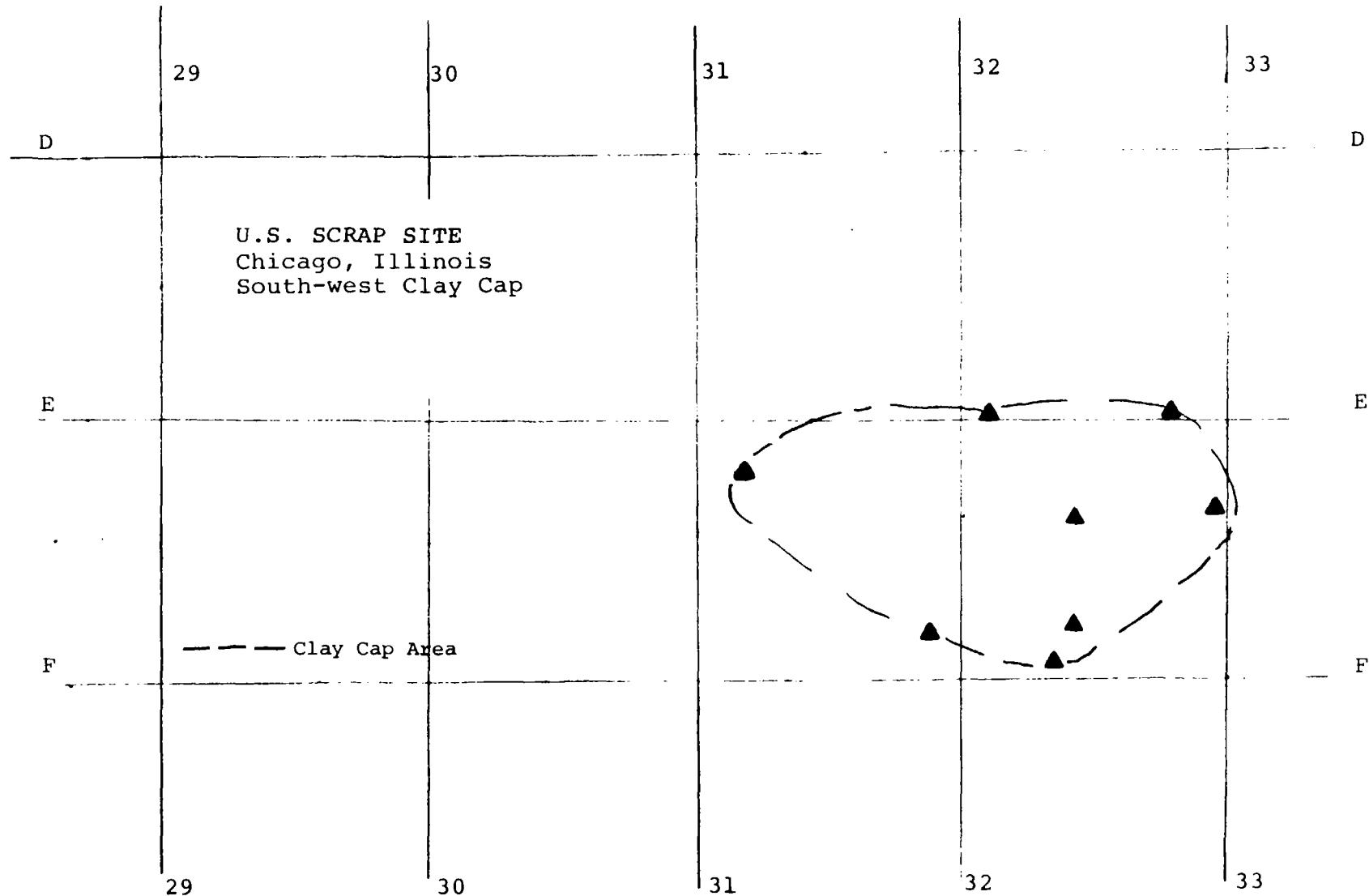
WEATHER COND.:

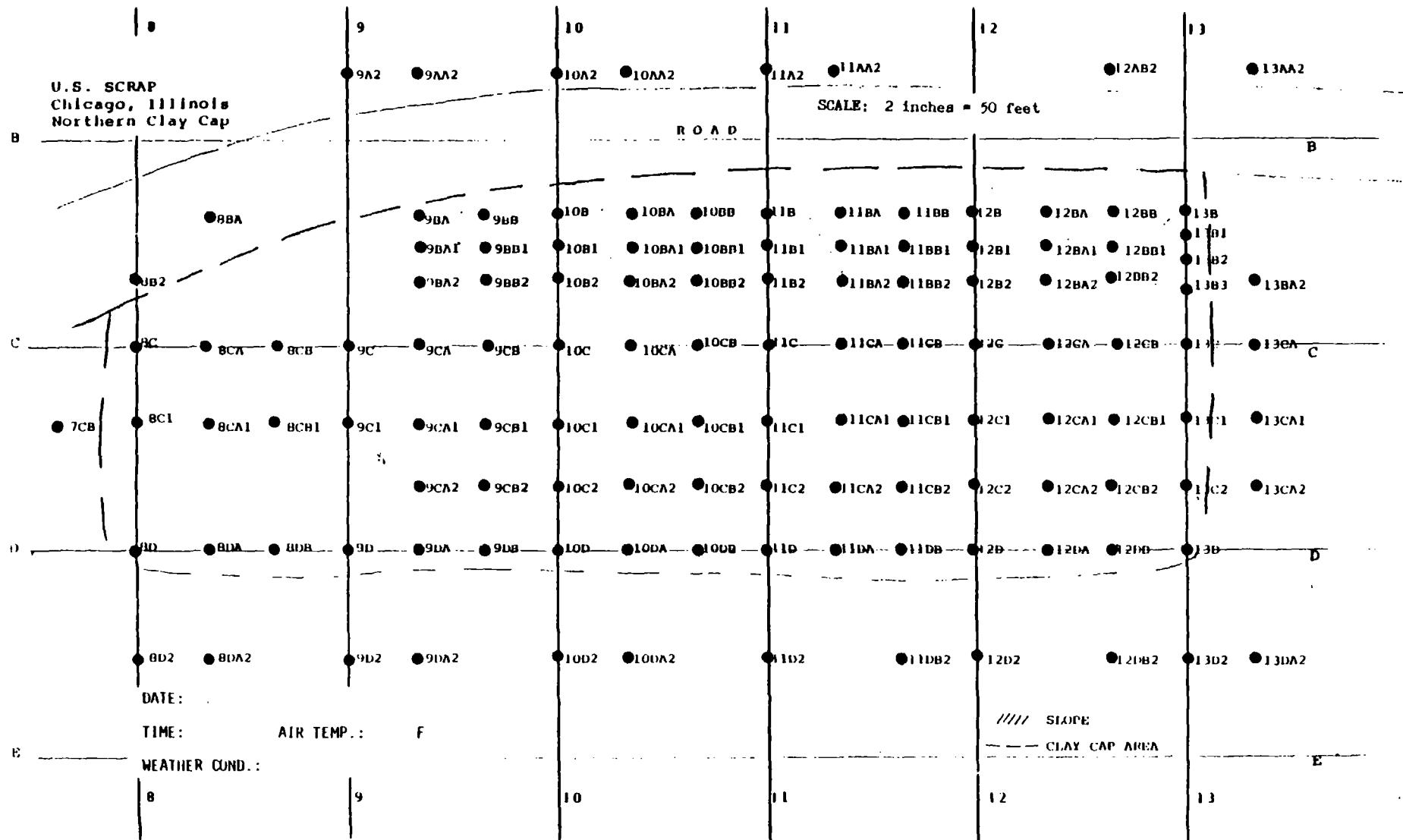
SCALE: 1.75 inches = 50 feet

**U.S. SCRAP SITE
Chicago, Illinois
South-west Clay Corp.**









PEI ASSOCIATES, INC.
(FORMERLY PEDCO ENVIRONMENTAL, INC.)

February 25, 1986

11499 CHESTER ROAD
CINCINNATI, OHIO 45246
(513) 782-4700
TELECOPIER (513) 782-4807

Dr. Briand Wu
U.S. Environmental Protection Agency
Waste Management Division
230 S. Dearborn (5-HR)
Chicago, IL 60604

Subject: EPA Contract No. 68-01-6894
Delivery Order No. 6894-05-050
U.S. Scrap - Chicago, IL

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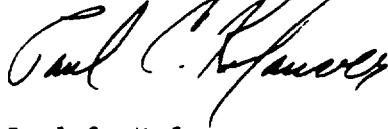
SCA Chemical Services, Inc.
Model City Facility
1550 Balmer Road
Model City, NY 14107
ATTN: Mr. Bill Beck

In order to assist you in the completion of this form I have also enclosed a copy of the waste profile sheets as submitted to the SCA - Model City facility.

Your assistance in this matter is greatly appreciated. If you have any questions, please contact me at 513/782-4841.

Very truly yours,

PEI ASSOCIATES, INC.



Paul C. Kefauver
Disposal Coordinator

PCK/mes

Enclosure

cc: G. Regan, U.S. EPA
B. Bowden, U.S. EPA

BRANCH OFFICES

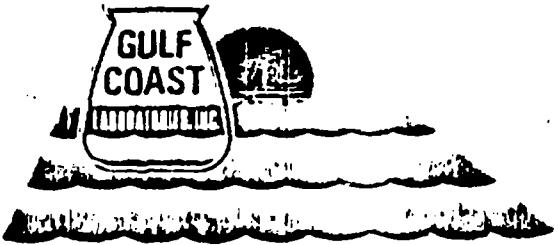
CHESTER TOWERS

DALLAS, TEXAS
DENVER, COLORADO

KANSAS CITY, KANSAS

COLUMBUS, OHIO
DURHAM, NORTH CAROLINA





GULF COAST LABORATORIES, INC.

2417 Bond St., Park Forest South, Illinois 60468

Phone(s) (312) 534-5200 (219) 885-7077 (815) 723-7530

ANALYTICAL REPORT

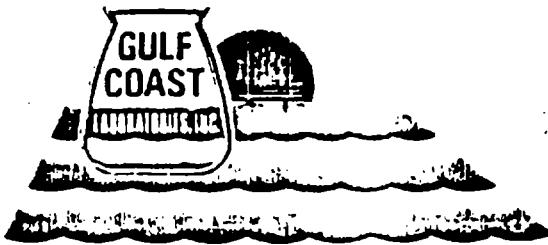
TO: Pedco Environmental
11499 Chester Road
Cincinnati, OH 45246

ATTN: Mr. Paul Kefauver

DATE: December 30, 1985

RE: U.S. Scrap 3018-P18 Soil
^{KOLOQES}
From 6 ~~Voltzite~~ CS#1 5428532
Sample Date: 12/06/85
GCL# 75006

PARAMETERS	RESULTS
Arsenic, E.P. Toxicity	< 0.5 mg/l
Barium, E.P. Toxicity	< 10 mg/l
Cadmium, E.P. Toxicity	< 0.1 mg/l
Chromium, E.P. Toxicity	< 0.5 mg/l
Copper, E.P. Toxicity	< 0.5 mg/l
Lead, E.P. Toxicity	< 0.5 mg/l
Mercury, E.P. Toxicity	< 0.02 mg/l
Nickel, E.P. Toxicity	< 0.5 mg/l
Selenium, E.P. Toxicity	< 0.1 mg/l
Silver, E.P. Toxicity	< 0.5 mg/l
Zinc, E.P. Toxicity	4.8 mg/l



GULF COAST LABORATORIES, INC.

2417 Bond St., Park Forest South, Illinois 60468

Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: Pedco Environmental
11499 Chester Road
Cincinnati, OH 45246

ATTN: Mr. Paul Kefauver

DATE: December 30, 1985

RE: U.S. Scrap 3018-P18 Soil
From 6 Veltotts CS#1 5428532
Sample Date: 12/06/85
GCL# 75006

PARAMETERS	RESULTS
Alkalinity	1.5 %
Ash	70.4 %
Total Cyanides	< 5.0 mg/kg
Reactive Cyanides	< 5.0 mg/kg
Flash Point (Closed Cup) *	> 200 °F
pH	8.2
Phenol	9.0 mg/kg
Total Sulfides	140 mg/kg
Reactive Sulfides	80 mg/kg
Total Solids	80.1 %
Reactivity Air	Passes
Reactivity Acid	Hydrogen Sulfide Produced
Reactivity Base	Passes
Reactivity Water	Passes
* Ethylene Glycol Added	

John Brudzinski

SALES	JOHN
/ 12	F61862
WASTE PROFILE SHEET CODE	

CERTIFICATION OF REPRESENTATIVE SAMPLE

GENERAL DIRECTIONS: IN ORDER TO DETERMINE WHETHER WE CAN ACCEPT THE SPECIAL WASTE DESCRIBED IN THE ABOVE NUMBERED PROFILE SHEET, WE MUST OBTAIN A REPRESENTATIVE SAMPLE OF THE WASTE. WE WILL ANALYZE THE SAMPLE TO VERIFY THE INFORMATION YOU HAVE PROVIDED US, SO IT IS PARTICULARLY IMPORTANT THAT THE SAMPLE BE TRULY REPRESENTATIVE. IN MOST CIRCUMSTANCES YOU WILL BE OBTAINING THE SAMPLE. HOWEVER, IN THOSE CASES IN WHICH WE OBTAIN THE SAMPLE, WE MUST ASK THAT ONE OF YOUR EMPLOYEES BE PRESENT TO DIRECT THE PARTICULAR SOURCE TO BE SAMPLED AND TO WITNESS THE SAMPLING. IN SUCH CASE, YOUR EMPLOYEE MUST SIGN THIS CERTIFICATION AS A WITNESS.

THIS CERTIFICATION MUST BE RETURNED, WITH THE REPRESENTATIVE WASTE SAMPLE, TO:



Note - a representative waste sample has not been sent to CWM because the enclosed chemical waste analysis was performed by a CWM-approved laboratory.

THE UNDERSIGNED CERTIFIES THAT HE/SHE OBTAINED A REPRESENTATIVE SAMPLE OF THE WASTE MATERIAL DESCRIBED IN THE "GENERATOR'S WASTE MATERIAL PROFILE SHEET" ABOVE REFERENCED, AND THAT THE FOLLOWING REPRESENTATIONS ARE TRUE AND CORRECT:

1. HOUR AND DATE OF SAMPLING: _____
2. SOURCE FROM WHICH SAMPLE TAKEN: _____
3. EQUIPMENT AND SAMPLING METHOD USED: _____
4. AMOUNT OF SAMPLE OBTAINED: _____
5. TYPE OF CONTAINER INTO WHICH SAMPLE WAS PLACED: _____
6. THE SAMPLING EQUIPMENT USED, AND THE CONTAINER INTO WHICH THE SAMPLE WAS PLACED, WERE THEMSELVES UNCONTAMINATED BEFORE USE.
7. AT THE TIME OF SAMPLING I AFFIXED A LABEL TO THE CONTAINER IN THE FOLLOWING FORM WITH THE FOLLOWING INFORMATION (FILL IN THIS PORTION, INCLUDING YOUR SIGNATURE, JUST AS IT APPEARS ON THE LABEL YOU PREPARED):

GENERATOR:
WASTE NAME:
SAMPLE HOUR/DATE:
PROFILE SHEET CODE:
SAMPLER SIGNATURE:

WITNESS VERIFICATION: I WAS PERSONALLY PRESENT DURING THE SAMPLING DESCRIBED; I DIRECTED THE WASTE SOURCE TO BE SAMPLED; AND I VERIFY THE INFORMATION ABOVE NOTED.

SAMPLER NAME: _____

SIGNATURE: _____

WITNESS: _____

TITLE: _____

SIGNATURE: _____

EMPLOYER: _____

TITLE: _____

DATE: _____

EMPLOYER: _____

SCA CHEMICAL SERVICES, INC.
P. O. BOX 200
1550 BALMER RD.
MODEL CITY, NY 14102

DATE: _____

PEI ASSOCIATES, INC.
(FORMERLY PEDCO ENVIRONMENTAL, INC.)

February 25, 1986

11499 CHESTER ROAD
CINCINNATI, OHIO 45246
(513) 782-4700
TELECOPIER (513) 782-4807

Dr. Briand Wu
U.S. Environmental Protection Agency
Waste Management Division
230 S. Dearborn (5-HR)
Chicago, IL 60604

Subject: EPA Contract No. 68-01-6894
Delivery Order No. 6894-05-050
U.S. Scrap - Chicago, IL

Dear Briand:

Please find enclosed a "Certification of Representative Sample" for material at the U.S. Scrap site. This blank certification was returned to me from CWM - SCA Model City for completion. Please have the individuals who originally sampled the soil in the roll off boxes complete this form. Forward the completed form to:

SCA Chemical Services, Inc.
Model City Facility
1550 Balmer Road
Model City, NY 14107
ATTN: Mr. Bill Beck

In order to assist you in the completion of this form I have also enclosed a copy of the waste profile sheets as submitted to the SCA - Model City facility.

Your assistance in this matter is greatly appreciated. If you have any questions, please contact me at 513/782-4841.

Very truly yours,

PEI ASSOCIATES, INC.



Paul C. Kefauver
Disposal Coordinator

PCK/mes

Enclosure

cc: G. Regan, U.S. EPA
B. Bowden, U.S. EPA



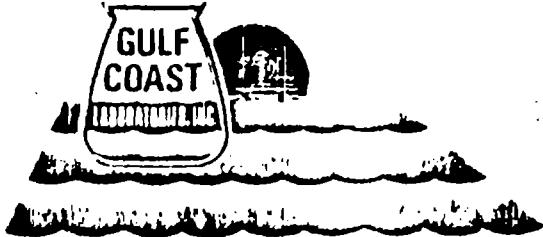
BRANCH OFFICES

DALLAS, TEXAS
DENVER, COLORADO

COLUMBUS, OHIO
DURHAM, NORTH CAROLINA

KANSAS CITY, KANSAS





GULF COAST LABORATORIES, INC.

2417 Bond St., Park Forest South, Illinois 60466

Phoneus (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: Pedco Environmental
11499 Chester Road
Cincinnati, OH 45246

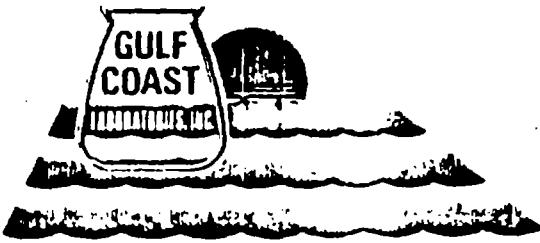
ATTN: Mr. Paul Kefauver

DATE: December 30, 1985

RE: U.S. Scrap 3D18-P18 Soil
~~Yard 455~~ From 6 ~~Voltotex~~ CS#1 54285322
Sample Date: 12/06/85
GCL# 75006

PARAMETERS	RESULTS
Arsenic, E.P. Toxicity	< 0.5 mg/l
Barium, E.P. Toxicity	< 10 mg/l
Cadmium, E.P. Toxicity	< 0.1 mg/l
Chromium, E.P. Toxicity	< 0.5 mg/l
Copper, E.P. Toxicity	< 0.5 mg/l
Lead, E.P. Toxicity	< 0.5 mg/l
Mercury, E.P. Toxicity	< 0.02 mg/l
Nickel, E.P. Toxicity	< 0.5 mg/l
Selenium, E.P. Toxicity	< 0.1 mg/l
Silver, E.P. Toxicity	< 0.5 mg/l
Zinc, E.P. Toxicity	4.8 mg/l

John Bowles



GULF COAST LABORATORIES, INC.

2417 Bond St., Park Forest South, Illinois 60468

Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: Pedco Environmental
11499 Chester Road
Cincinnati, OH 45246

ATTN: Mr. Paul Kefauver

DATE: December 30, 1985

RE: U.S. Scrap ^{Pellets} 3018-P18 Soil
From 6 Veltots CS#1 54285322
Sample Date: 12/06/85
GCL# 75006

PARAMETERS	RESULTS
Alkalinity	1.5 %
Ash	70.4 %
Total Cyanides	< 5.0 mg/kg
Reactive Cyanides	< 5.0 mg/kg
Flash Point (Closed Cup) *	> 200 oF
pH	8.2
Phenol	9.0 mg/kg
Total Sulfides	140 mg/kg
Reactive Sulfides	80 mg/kg
Total Solids	80.1 %
Reactivity Air	Passes
Reactivity Acid	Hydrogen Sulfide Produced
Reactivity Base	Passes
Reactivity Water	Passes

* Ethylene Glycol Added

John Boudreau



Suite 1501, Northbrook Office Court
666 West Dundee Road, Northbrook, IL 60062 • (312) 498-9094

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-6669

Mr. Don Haugen
Wayne Disposal, Inc.
P.O. Box 5187
Dearborn, Michigan 48128

January 30, 1986
TAT-05-F-00821

Dear Mr. Haugen:

Please find enclosed copies of waste profile sheets for waste materials at the U.S. Scrap site in Chicago, IL. As discussed with Mr. J. Fore, representative waste samples have not been sent to Wayne Disposal because the enclosed chemical waste analyses are sufficient.

If you have any questions, please contact me at
312/498-9090.

Very truly yours,

ROY F. WESTON, INC.

A handwritten signature in black ink that appears to read "Tom Gainer".

Tom Gainer
Environmental Engineer

A handwritten signature in black ink that appears to read "Scott D. Springer".

Scott D. Springer
Technical Assistance Team
Leader, Region V

TG:ap

Enclosure

Roy F. Weston, Inc.

SPILL PREVENTION & EMERGENCY RESPONSE DIVISION

In Association with Jacobs Engineering Group Inc., Tetra Tech, Inc., and ICF Incorporated



Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET

WASTE PROFILE SHEET CODE

COL
TSOR

E61873

A GENERAL INFORMATION

GENERATOR NAME: U.S. EPA
 FACILITY ADDRESS: U.S. SCRAP
 16300 S. COTTAGE GROVE
 CHICAGO, IL
 TECHNICAL CONTACT: BRIAN D. WU
 NAME OF WASTE: BASE/NEUTRAL DRUMS
 PROCESS GENERATING WASTE: WASTE SITE CLEANUP

TRANSPORTER: To Be Determined
 TRANSPORTER PHONE: 708-930-6777
 GENERATOR USEPA I.D.: IL-0930677734
 GENERATOR STATE I.D.: 312/886-0246
 TITLE: On-Site Coordinator
 PHONE: 312/886-0246

B PHYSICAL CHARACTERISTICS OF WASTE

COLOR: Brown	ODOR: <input type="checkbox"/> NONE <input checked="" type="checkbox"/> MILD <input type="checkbox"/> STRONG	PHYSICAL STATE @ 70°F: <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> SEMI-SOLID <input type="checkbox"/> LIQUID <input type="checkbox"/> POWDER	LAYERS: <input type="checkbox"/> MULTILAYERED <input type="checkbox"/> BI-LAYERED <input checked="" type="checkbox"/> SINGLE PHASED	FREE LIQUIDS: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
pH: <input type="checkbox"/> < 2 <input type="checkbox"/> 7.1-10 <input type="checkbox"/> N/A	SPECIFIC GRAVITY: <input type="checkbox"/> < .9 <input type="checkbox"/> 1.3-1.4 <input type="checkbox"/> 2.4 <input type="checkbox"/> 8.1-10 <input type="checkbox"/> 15-17 <input checked="" type="checkbox"/> 4.1-6.9 <input type="checkbox"/> 11.1-12 <input type="checkbox"/> > 1.7 <input type="checkbox"/> 7 <input checked="" type="checkbox"/> EXACT 5.2	FLASH POINT: <input type="checkbox"/> < 70°F <input type="checkbox"/> > 200°F <input type="checkbox"/> 70°F-100°F <input type="checkbox"/> NO FLASH <input checked="" type="checkbox"/> 101°F-139°F <input checked="" type="checkbox"/> EXACT 60°F <input type="checkbox"/> 140°F-200°F	<input checked="" type="checkbox"/> CLOSED CUP <input type="checkbox"/> OPEN CUP	

C CHEMICAL COMPOSITION (TOTALS MUST ADD TO 100%)

INORGANIC SALTS	6
PLASTICS	2
VOLATILE ORGANICS	13
WATER	44
	%
	%
	%
	%
	%
	%

O METALS	TOTAL (PPM)	EPA EXTRACTION PROCEDURE (mg/L)
ARSENIC (As)	50.5 mg/L	50.1 mg/L
BARIUM (Ba)	50.5 mg/L	50.5 mg/L
CADMIUM (Cd)	50.1 mg/L	50.5 mg/L
CHROMIUM (Cr)	0.7 mg/L	50.5 mg/L
MERCURY (Hg)	50.02 mg/L	50.5 mg/L
LEAD (Pb)	50.5 mg/L	50.5 mg/L
CHROMIUM-HEX (Cr + 6)	NA	NA

E OTHER COMPONENTS - TOTAL (PPM)	
CYANIDES	50.5 ppm
SULFIDES	50.5 ppm

F SHIPPING INFORMATION

DOT HAZARDOUS MATERIAL?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
PROPER SHIPPING NAME:	HAZARDOUS WASTE Scenarios
HAZARD CLASS:	CRM-G ID. NO. 169187 R.O.
METHOD OF SHIPMENT:	<input type="checkbox"/> BULK LIQUID <input checked="" type="checkbox"/> BULK SOLID or <input checked="" type="checkbox"/> DRUM TYPE/SIZE: 55 gal/35 gal
ANTICIPATED VOLUME: L	GALS: 20.6 CUBIC YARDS
PER:	OTHER: 57.02 - 55 gal
	ONE TIME <input type="checkbox"/> WEEK <input type="checkbox"/> MONTH
	QUARTER <input type="checkbox"/> YEAR <input type="checkbox"/>

G HAZARDOUS CHARACTERISTICS	
REACTIVITY:	<input checked="" type="checkbox"/> NONE <input type="checkbox"/> PYROPHORIC <input type="checkbox"/> SHOCK SENSITIVE
	<input type="checkbox"/> EXPLOSIVE <input type="checkbox"/> WATER REACTIVE <input type="checkbox"/> OTHER
OTHER HAZARDOUS CHARACTERISTICS:	
<input type="checkbox"/> NONE	<input type="checkbox"/> RADIOACTIVE <input type="checkbox"/> ETIOLOGICAL
<input type="checkbox"/> PESTICIDE MANUFACTURING WASTE	<input checked="" type="checkbox"/> OTHER: INORGANIC
USEPA HAZARDOUS WASTE?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
USEPA HAZARDOUS CODE(S):	2001
STATE HAZARDOUS WASTE?	<input type="checkbox"/> YES <input type="checkbox"/> NO
STATE CODE(S):	

H SPECIAL HANDLING INFORMATION	IN-HAZARDOUS INFORMATION: CYCLING
PCF ASSOCIATES, INC.; 11499 CINCINNATI RD., CINCINNATI, OH 45244, ATTN: PAUL REFINER	513/752-4841

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE, AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED

AUTHORIZED SIGNATURE

TITLE

DATE

Brian D. Wu OSC 2-7-26

ADDITIONAL PAGE(S) ATTACHED



Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET

WASTE PROFILE SHEET CODE

COL
SDR

F61865

A GENERAL INFORMATION

GENERATOR NAME: U.S. EPIC TRANSPORTER: TO BE DETERMINED
 FACILITY ADDRESS: U.S. SCRAP TRANSPORTER PHONE: _____
16300 S. COTTAGE GROVE
CHICAGO IL GENERATOR USEPA I.D.: ELO 93 06797 37
 TECHNICAL CONTACT: BRANDI WU TITLE: ON SCENE COORDINATOR PHONE: 361/886-2644
 NAME OF WASTE: TRASHED DRUMS
 PROCESS GENERATING WASTE: WASTE SITE CLEANUP

B PHYSICAL CHARACTERISTICS OF WASTE

COLOR: <u>N/A</u>	ODOR: <input type="checkbox"/> NONE <input checked="" type="checkbox"/> MILD <input type="checkbox"/> STRONG	PHYSICAL STATE: <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> SEMI-SOLID <input type="checkbox"/> LIQUID <input type="checkbox"/> POWDER	LAYERS: <input type="checkbox"/> MULTILAYERED <input type="checkbox"/> BI-LAYERED <input checked="" type="checkbox"/> SINGLE PHASED	FREE LIQUIDS: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
PH: < 2	> 10	SPECIFIC GRAVITY: < 3	FLASH POINT: < 70°F	> 200°F
2.4	> 12.5	8-10	70°F - 100°F	NO FLASH
41-69	> 12.5	11-12	101°F - 139°F	OPEN CUP
-	EXACT	EXACT <u>N/A</u>	140°F - 200°F	EXACT <u>N/A</u>

C CHEMICAL COMPOSITION (TOTAL MUST ADD TO 100%)

REUSED DRUMS + LEADS 100%

ARSENIC (As)	<u>N/A</u>
BARIUM (Ba)	<u>N/A</u>
CADMIUM (Cd)	<u>N/A</u>
CHROMIUM (Cr)	<u>N/A</u>
MERCURY (Hg)	<u>N/A</u>
LEAD (Pb)	<u>N/A</u>
CHROMIUM-HEX (Cr + 6)	<u>N/A</u>

D METALS	TOTAL PPM	EPA EXTRACTION PROCEDURE (mcL)
ARSENIC (As)	<u>N/A</u>	<u>N/A</u>
BARIUM (Ba)	<u>N/A</u>	<u>N/A</u>
CADMIUM (Cd)	<u>N/A</u>	<u>N/A</u>
CHROMIUM (Cr)	<u>N/A</u>	<u>N/A</u>
MERCURY (Hg)	<u>N/A</u>	<u>N/A</u>
LEAD (Pb)	<u>N/A</u>	<u>N/A</u>
CHROMIUM-HEX (Cr + 6)	<u>N/A</u>	<u>N/A</u>

E OTHER COMPONENTS TOTAL (PPM)

CYANIDES	<u>N/A</u>	PCB'S	<u>N/A</u>
SULFIDES	<u>N/A</u>	PHENOLICS	<u>N/A</u>

F SHIPPING INFORMATION

D.O. HAZARDOUS MATERIAL? YES NO

PROPER SHIPPING NAME: HAZARDOUS WASTE SITES

HAZARD CLASS: DK 19-5 ID NO: 147 9189 RQ: 1

METHOD OF SHIPMENT: BULK LIQUID BULK SOLID
 DRUM (TYPE/SIZE) _____

ANTICIPATED VOLUME: 20 GALS / 20 CUBIC YARDS

OTHER: _____

PER: ONE TIME WEEK MONTH
 QUARTER YEAR _____

G HAZARDOUS CHARACTERISTICS

REACTIVITY <input checked="" type="checkbox"/> NONE	<input type="checkbox"/> PYROPHORIC	<input type="checkbox"/> SHOCK SENSITIVE
<input type="checkbox"/> EXPLOSIVE	<input type="checkbox"/> WATER REACTIVE	<input type="checkbox"/> OTHER
OTHER HAZARDOUS CHARACTERISTICS:		
<input checked="" type="checkbox"/> NONE	<input type="checkbox"/> RADIOACTIVE	<input type="checkbox"/> ETIOLOGICAL
<input type="checkbox"/> PESTICIDE MANUFACTURING WASTE	<input type="checkbox"/> OTHER	
USEPA HAZARDOUS WASTE? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
USEPA HAZARDOUS CODE(S) _____		
STATE HAZARDOUS WASTE? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
STATE CODE(S) _____		

H SPECIAL HANDLING INFORMATION (CONTINUE ON BACKSIDE IF NECESSARY)

PET ASSOCIATES, INC.; 11499 HESTER RD; CINCINNATI, OH 45241
ATTN: Paul REED/VER 513/752-4941

ADDITIONAL PAGE IS ATTACHED

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED

AUTHORIZED SIGNATURE: Brandi Wu TITLE: ASG DATE: 27-86



Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET



WASTE PROFILE SHEET NO.:

CIL

E 31872

A GENERAL INFORMATION

GENERATOR NAME: J. S. EGG TRANSPORTER: To Be Determined
 FACILITY ADDRESS: J. S. EGG TRANSPORTER PHONE:
1630 S. 37TH ST. GROVE
CHICAGO, IL
 GENERATOR USEPA ID: CDL930617757
 TECHNICAL CONTACT: ERIKU TITLE: GEN. SUPERVISOR PHONE: 312/886-7441
 NAME OF WASTE: TRIMMABLE SOLID
 PROCESS GENERATING WASTE: WASTE SITE CLEANUP

B PHYSICAL CHARACTERISTICS OF WASTE

COLOR	ODOR	MEDIUM	PHYSICAL STATE	VIS	LAYERS	FREE LIQUIDS
BLACK	<input checked="" type="checkbox"/> NONE <input type="checkbox"/> STRONG	<input type="checkbox"/> MILK <input checked="" type="checkbox"/> LIQUID	<input type="checkbox"/> SOLID <input type="checkbox"/> LIQUID	<input checked="" type="checkbox"/> SEMI-SOLID <input type="checkbox"/> POWDER	<input type="checkbox"/> MULTILAYERED <input type="checkbox"/> BI-LAYERED <input checked="" type="checkbox"/> SINGLE PHASED	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
		DESCRIBE: <u>N/A</u>				
pH <u>< 2</u>	<input checked="" type="checkbox"/> 7 - 10 <input type="checkbox"/> 3-4 <input type="checkbox"/> 4-6-9 <input type="checkbox"/> 7	<input type="checkbox"/> N/A	SPECIFIC GRAVITY <u>< 3</u> <u>3-10</u> <u>1.1-1.2</u> <input checked="" type="checkbox"/> EXACT <u>1.2</u>	<input type="checkbox"/> 13-14 <u>15-17</u> <u>> 17</u>	FLASH POINT <u>< 70°F</u> <u>70°F - 100°F</u> <u>101°F - 139°F</u> <u>140°F - 200°F</u>	<input type="checkbox"/> > 200°F <input type="checkbox"/> NO FLASH <input checked="" type="checkbox"/> EXACT <u>55°F</u>
						<input checked="" type="checkbox"/> CLOSED CUP <input type="checkbox"/> OPEN CUP

C CHEMICAL COMPOSITION (TOTALS MUST ADD TO 100%)

<u>Calcium</u>	<u>5%</u>
<u>CAS-TYPE</u>	<u>5%</u>
<u>IRON</u>	<u>35%</u>
<u>WATER</u>	<u>9%</u>
<u>VOLATILE ORGANICS</u>	<u>10%</u>

DEMETALS	TOTAL PPM	EPA EXTRACTION PROCEDURE (MC/L)
ARSENIC (As)	<u>< 7.3 mg/l</u>	SELENIUM (Se) <u>< 0.1 mg/l</u>
BARIUM (Ba)	<u>< 10 mg/l</u>	SILVER (Ag) <u>< 0.5 mg/l</u>
CADMIUM (Cd)	<u>0.1 mg/l</u>	COPPER (Cu) <u>0.6 mg/l</u>
CHROMIUM (Cr)	<u>< 0.5 mg/l</u>	NICKEL (Ni) <u>< 2.5 mg/l</u>
MERCURY (Hg)	<u>< 0.02 mg/l</u>	ZINC (Zn) <u>< 3.3 mg/l</u>
LEAD (Pb)	<u>0.5 mg/l</u>	THALLIUM (Tl) <u>N/A</u>
CHROMIUM-HEX (Cr - 6)	<u>N/A</u>	

D OTHER COMPONENTS TOTAL (PPM)

<u>GITAL</u>	<u>< 2 ppm</u>	PCBS <u>N/A</u>
<u>CYANIDES</u>	<u>< 2 ppm</u>	PHENOLICS <u>< 26.2 ppm</u>
<u>GITAL</u>	<u>< 5 ppm</u>	
<u>SULFIDES</u>	<u>< 2 ppm</u>	

F SHIPPING INFORMATION

DOT HAZARDOUS MATERIAL?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
PROPER SHIPPING NAME:	<u>TRIMMABLE SOLID N.O.S.</u>	
HAZARD CLASS:	<u>TRIMMABLE SOLID ID NO 1335 PG</u>	
METHOD OF SHIPMENT:	<input type="checkbox"/> BULK LIQUID	<input type="checkbox"/> BULK SOLID
	<input checked="" type="checkbox"/> DRUM/TITLE/SIZE: <u>55 GAL</u>	
ANTICIPATED VOLUME:	<input type="checkbox"/> GALS <u>1 LTR</u>	<input type="checkbox"/> CUBIC YARDS <u>0</u>
PER:	<input checked="" type="checkbox"/> ONE TIME	<input type="checkbox"/> WEEK
	<input type="checkbox"/> QUARTER	<input type="checkbox"/> YEAR

G HAZARDOUS CHARACTERISTICS

REACTIVITY	<input checked="" type="checkbox"/> NONE	<input type="checkbox"/> PYROPHORIC	<input type="checkbox"/> SHOCK SENSITIVE
	<input type="checkbox"/> EXPLOSIVE	<input type="checkbox"/> WATER REACTIVE	<input type="checkbox"/> OTHER
OTHER HAZARDOUS CHARACTERISTICS			
	<input type="checkbox"/> NONE	<input type="checkbox"/> RADIOACTIVE	<input type="checkbox"/> ETOLOGICAL
	<input type="checkbox"/> PESTICIDE MANUFACTURING WASTE	<input checked="" type="checkbox"/> OTHER	<u>ENVITABLE</u>
USEPA HAZARDOUS WASTE?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
USEPA HAZARDOUS CODE(S):	<u>001</u>		
STATE HAZARDOUS WASTE?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
STATE CODE(S):			

H SPECIAL HANDLING INFORMATION

RECYCLING
FEI ASSOCIATES 11499 CHESTER RD. CINCINNATI, OH 45246
ATTN: Paul Reamer 513/732-4341

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED

AUTHORIZED SIGNATURE:

TITLE:

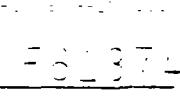
DATE:

Brian J. O'Sullivan 2-7-86



Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET


A GENERAL INFORMATION

GENERATOR NAME

L.S. EPF

TRANSPORTER

To BE DETERMINED

FACTORY ADDRESS

L.S. SCRAP

TRANSPORTER PHONE

1-800-543-1717

2320 S. 111ST AVE

GENERATOR USEPA ID

JENKINS IL

GENERATOR STATE ID

JENKINS WI

GENERATOR STATE ID

NAME OF WASTE

Hazardous Waste

ON-SITE HOLDING

PHONE 312/226-1241

PROCESS GENERATING WASTE

WASTE SITE CLEANUP

B PHYSICAL CHARACTERISTICS OF WASTE
DESCRIPTION
L.S. Scrap
ClockODOR
None
Strong
Describe N/APHYSICAL STATE
Solid
Semi-Solid
Liquid
PowderVOLUME
Unmeasured
3-Layered
Single PhasedFREE LIQUIDS
Yes
No
Volume LPH
- < 2
- 24
X 41-69
- 7SPECIFIC GRAVITY
- 1.0
- 1.23
X 1.25
- Exact 1.4FLASH POINT
- < 70°F
- 70°F - 100°F
- 100°F - 130°F
- 130°F - 200°F> 200°F
No Flash
Exact 130°FCLOSED CUP
OPEN CUP
X EXACT 130°FC CHEMICAL COMPOSITION (TOTAL MUST ADD TO 100%)
N/A
N/A
N/A
N/A
N/A
N/A
N/A

	TOTAL PPM	USEPA EXTRACTION PROCEDURE (TP)
ARSENIC AS(3)	50.0 mill	SELENIUM Sel 40.7 mill
BARIUM Bar	1.0 mill	SILVER Ag 40.7 mill
CADMIUM Cd	0.3 mill	COPPER Cu 40.7 mill
CHROMIUM Cr	0.5 mill	NICKEL Ni 40.7 mill
MERCURY Hg	50.02 mill	ZINC Zn 14 mill
LEAD Pb	200 mg/ml	THALLIUM Tl 1.1A
CHROMIUM Hex Cr	0.0 mill	

E OTHER COMPONENTS TOTAL PPM
PCB's < 3.0 ppm
CYANIDES 15.0 ppm
ROCKS 2.0 ppm
SULFIDES TOTAL 3.0 ppmPCBS N/A
PHENOLICS N/A
F SHIPPING INFORMATION
DOT HAZARDOUS MATERIAL YES NO

PROPER SHIPPING NAME FLAMMABLE SOLID, n.o.s.

HAZARD CLASS FLAMMABLE SOLID UN1323 RQ

METHOD OF SHIPMENT BULK LIQUID BULK SOLID

SURFACE TYPE (SIZE) 55 gal

ANTICIPATED VOLUME 3 DRUMS GALS CUBIC YARDS

3 DRUMS OTHER

PER ONE TIME WEEK MONTH
 QUARTER YEAR
G TOXIC CHARACTERISTICS

REACTIVITY <input checked="" type="checkbox"/> NONE	<input type="checkbox"/> PYROPHORIC	<input type="checkbox"/> SHOCK SENSITIVE
<input type="checkbox"/> EXPLOSIVE	<input type="checkbox"/> WATER REACTIVE	<input type="checkbox"/> OTHER
OTHER HAZARDOUS CHARACTERISTICS		
<input type="checkbox"/> NONE	<input type="checkbox"/> RADIOACTIVE	<input type="checkbox"/> ETOLOGICAL
<input type="checkbox"/> PESTICIDE MANUFACTURING WASTE	<input checked="" type="checkbox"/> OTHER	<input checked="" type="checkbox"/> IGNITABLE

USEPA HAZARDOUS WASTE?

 YES NO

USEPA HAZARDOUS CODE(S)

0003 0001

STATE HAZARDOUS WASTE?

 YES NO

STATE CODE(S)

H SPECIAL HANDLING INFORMATION
CONTAINER REARRANGING, INTERACTION WITH
HCL ASSOCIATES INC, 11499 CHESTER RD. CINCINNATI,
OH 45241. HTTP://HCL.REFILLER 513/782-1841 X-ADDITIONAL PAGES ATTACHEDI HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL OTHER DOCUMENTS IS COMPLETE AND ACCURATE AND THAT THE FOLLOWING
SUSPECTED HAZARDS HAVE BEEN DISCLOSED

AUTHORIZED SIGNATURE

DATE

DATE

Brian C. Williams

2-7-91



Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET

WASTE PROFILE SHEET CODE

17-1
SCR

F31361

A. GENERAL INFORMATION

GENERATOR NAME 55 GALLON DRUMS TRANSPORTER TRUCK
 FACILITY ADDRESS 55 GALLON DRUMS TRANSPORTER PHONE (513) 782-4841
11550 S. MICHIGAN AVE.
CINCINNATI, OHIO GENERATOR USEPER ID 11550
45227 GENERATOR STATE ID 45
 TECHNICAL CONTACT URGENT TITLE DR. STEVE FROSTATION PHONE (513) 782-4841
 NAME OF WASTE
 PROCESS GENERATING WASTE WASTE SITE 11550

B. PHYSICAL CHARACTERISTICS OF WASTE

ITEM	DESCRIPTION	TYPE	STATE	TEMPERATURE	FLASH POINT	FREE LIQUIDS	VOLUME
		SOLID	SEMISOLID	LAYERED	YES		
SMELL		STRONG	SOLID	LIQUID	< 70°F	X 200°F	X CLOSED CUP
COHESION		SOFT	SEMISOLID	LIQUID	70°F - 100°F	NO FLASH	OPEN CUP
CONSISTENCY		SOFT	LAYERED	LIQUID	101°F - 139°F	EXACT	
DENSITY		LIQUID	LIQUID	LIQUID	140°F - 200°F		
EXACT	X						

C. CHEMICAL COMPOSITION (TOTAL WASTE AND 10%)

	0 METALS	TOTAL PPM	EPA EXTRACTION PROCEDURE mg/L
ALUMINUM ALM	< 1 ppm		SELENIUM Se
BARIUM Bar	< 1 ppm		SILVER Ag
CADMIUM Cd	11 ppm		COPPER Cu
CHROMIUM Cr	< 2.7 ppm		NICKEL Ni
MERCURY (Hg)	< 0.02 ppm		ZINC Zn
LEAD Pb	11 ppm		THALLIUM Tl
CHROMIUM HEX Cr + 6	11 ppm		

D. SHIPPING INFORMATION

DOT HAZARDOUS MATERIALS YES NO
 PROPER SHIPPING NAME DR. STEVE FROSTATION
 HAZARD CLASS UN1-L ID NO 11550 RD 1
 METHOD OF SHIPMENT BULK LIQUID BULK SOLID
 DRUM TYPE/SIZE 55 GAL

ANTICIPATED VOLUME 1 LTR/IN GALS 0.000 CUBIC YARDS
0.000 OTHER
 PER ONE TIME WEEK MONTH
 QUARTER YEAR

E. OTHER COMPONENTS (TOTAL PPM)

PCBS	11 ppm
PHENOLICS	11 ppm

F. HAZARDOUS CHARACTERISTICS

REACTIVITY NONE PYROPHORIC SHOCK SENSITIVE
 EXPLOSIVE WATER REACTIVE OTHER

OTHER HAZARDOUS CHARACTERISTICS

NONE RADIOACTIVE ETOLOGICAL
 PESTICIDE MANUFACTURING WASTE OTHER

USEPA HAZARDOUS WASTE? YES NO

USEPA HAZARDOUS CODE(S) _____

STATE HAZARDOUS WASTE? YES NO

STATE CODE(S) _____

H. SPECIAL HANDLING INFORMATION

REI ASSOCIATES INC., 11449 CHESTER RD, CINCINNATI, OH 45246
TEL: (513) 782-4841 ADDITIONAL PAGES ATTACHED

WARNING: BY SIGNING THIS FORM, THE INDIVIDUAL SIGNING AGREES TO BE HELD LIABLE FOR ANY MISSTATEMENT OR OMISSION IN THIS FORM AND THAT ALL INFORMATION CONTAINED THEREIN IS TRUE AND CORRECT.
 SUSPECTED HAZARDS HAVE BEEN DISCLOSED
 AUTHORIZED SIGNATURE

DATE

Steve Frostation 15

2-7-26



Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET

7/2/92
531332

A GENERAL INFORMATION

GENERATOR NAME L S EMPITRANSPORTER TRI STATE RECYCLINGFACILITY ADDRESS 5 SCRIBBTRANSPORTER PHONE 412-263-17772800 5 MILE RD
DETROIT MIGENERATOR ID # 412-263-1777TECHNICAL CONTACT CRIPPOTITLE MANAGERNAME OF WASTE SCRIBBPROCESS GENERATING WASTE PLASTIC SITE CLEARUP

B PHYSICAL CHARACTERISTICS OF WASTE

COLOR	ODOR	None	Absent	PHYSICAL STATE	SOLID	SEMISOLID	LIQUID	SLURRY	MULTIPHASED	SINGLE PHASED	FREE LIQUIDS	VOLUME
<u>BLACK</u>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>SOLID</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>NO</u>
				<u>SOID</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<u>POWD</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
									<input type="checkbox"/>	<input checked="" type="checkbox"/>		

SPH	<u>4.2</u>	<input checked="" type="checkbox"/>	<u>7.0-10</u>	<input type="checkbox"/>	<u>N/A</u>	<u>SPECIFIC GRAVITY</u>	<u>< 3</u>	<u>13-14</u>	<u>FLASH POINT</u>	<u>< 70°F</u>	<input checked="" type="checkbox"/>	<u>> 200°F</u>	<input checked="" type="checkbox"/>	<u>CLOSED CUP</u>
	<u>2.2</u>	<input type="checkbox"/>	<u>7.0-10</u>	<input type="checkbox"/>	<u>N/A</u>		<u>3-5</u>	<u>15-17</u>		<u>70°F - 100°F</u>	<input type="checkbox"/>	<u>NO FLASH</u>	<input type="checkbox"/>	<u>OPEN CUP</u>
	<u>41.59</u>	<input type="checkbox"/>	<u>> 12.5</u>	<input type="checkbox"/>	<u>N/A</u>		<u>11-12</u>	<u>> 17</u>		<u>101°F - 139°F</u>	<input type="checkbox"/>	<u>EXACT</u>	<input type="checkbox"/>	
		<input checked="" type="checkbox"/>	<u>EXACT</u>	<input type="checkbox"/>	<u>N/A</u>		<u>EXACT</u>	<u>N/A</u>		<u>140°F - 200°F</u>	<input type="checkbox"/>		<input type="checkbox"/>	

C CHEMICAL COMPOSITION TOTAL MUST ADD TO 100%

		TOTAL PPM	EPA EXTRACTION PROCEDURE
ARSENIC	<u>100</u>	<input checked="" type="checkbox"/>	SELENIUM
CHROMIUM	<u>100</u>	<input type="checkbox"/>	CHLORINE
LEAD	<u>100</u>	<input type="checkbox"/>	COPPER
CHROMIUM	<u>100</u>	<input type="checkbox"/>	NICKEL
MERCURY	<u>100</u>	<input type="checkbox"/>	ZINC
LEAD	<u>100</u>	<input type="checkbox"/>	THALLIUM
CHROMIUM	<u>100</u>	<input type="checkbox"/>	

	TOTAL PPM	EPA EXTRACTION PROCEDURE
DIAZ	<u>100</u>	<input type="checkbox"/>
CHLORIDES	<u>100</u>	<input type="checkbox"/>
SULFIDES	<u>100</u>	<input type="checkbox"/>
PCBS	<u>100</u>	<input type="checkbox"/>
PHENOLICS	<u>100</u>	<input type="checkbox"/>

D SHIPPING INFORMATION

DOT HAZARDOUS MATERIAL YES NOPROPER SHIPPING NAME HAZARDOUS WASTE SOLIDHAZARD CLASS UN1106 ID NO NA4189METHOD OF SHIPMENT BULK LIQUID BULK SOLID DRUM/TYPE/SIZEANTICIPATED VOLUME GALS 80 CUBIC YARDS OTHERPER ONE TIME WEEK MONTH QUARTER YEAR

<u>SPECIAL HANDLING INFORMATION</u>	<u>CONTAIN REGRINDING INFORMATION FILLING</u>
<u>ETI ASSOCIATES INC</u>	<u>11499 REGISTER RD, CINCINNATI, OH 45246</u>
<u>ETI TOLL FREE NUMBER</u>	<u>513/752-4330</u>

SPECIAL HANDLING INFORMATION
SPECIAL HANDLING HAVE BEEN DISCLOSED
DATE 7/2/92 BY

X ADDED PAGE ATTACHED

Eric Lohr RSC

27-26



Suite 1501, Northbrook Office Court
666 West Dundee Road, Northbrook, IL 60062 • (312) 498-9094

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-6669

Ms. Susan Stokes
Chemical Waste Management of Alabama, Inc.
P.O. Box 55
Emelle, Alabama 35459

January 30, 1986
TAT-05-F-00820

Dear Ms. Stokes:

Please find enclosed completed waste profile sheets for waste submitted for disposal consideration at CWM - Emelle, AL. As discussed with Mr. Tim Welch at CWM's Model City facility, representative waste samples have not been sent to CWM because the enclosed chemical waste analyses were performed by a CWM-approved laboratory.

If you have any questions, please contact me at
312/498-9090.

Very truly yours,

ROY F. WESTON, INC.

Tom Gainer

Tom Gainer
Environmental Engineer

Scott D. Springer

Scott D. Springer
Technical Assistance Team
Leader, Region V

TG:ap

Enclosure

Roy F. Weston, Inc.

SPILL PREVENTION & EMERGENCY RESPONSE DIVISION

In Association with Jacobs Engineering Group Inc., Tetra Tech, Inc., and ICF Incorporated



Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET

WASTE PROFILE SHEET CODE

COL
SDR

E61873

A. GENERAL INFORMATION

GENERATOR NAME:

U.S. EPA

TRANSPORTER

To Be Determined

FACILITY ADDRESS:

U.S. SCRAP

TRANSPORTER PHONE

1-619-0679737

1230C S. COTTAGE GROVE
CHICAGO, IL

GENERATOR USEPA I.D.

TECHNICAL CONTACT:

ERIAND WI

GENERATOR STATE I.D.

NAME OF WASTE:

RAE/NEUTRAL DRUMS

TITLE

PROCESS GENERATING WASTE:

WASTE SITE CLEANUP

PHONE

362/886-6246

B. PHYSICAL CHARACTERISTICS OF WASTE

COLOR Brown	ODOR STRONG	MILD	PHYSICAL STATE @ 70°F SOLID	LAYERS MULTILAYERED	FREE LIQUIDS YES
				SEMISOLID	3-LAYERED
DESCRIBE	NA		LIQUID	POWDER	SINGLE PHASED
PH	<input type="checkbox"/> < 2 <input type="checkbox"/> 2-4 <input checked="" type="checkbox"/> 4-6.9 <input type="checkbox"/> ?	<input type="checkbox"/> 7-10 <input type="checkbox"/> 10.1-12.5 <input checked="" type="checkbox"/> EXACT 5.2	N/A	SPECIFIC GRAVITY 8-10 1.1-1.2 EXACT NA	< 8 13-14 15-17 > 17
FLASH POINT	< 70°F 70°F-100°F 101°F-139°F 140°F-200°F	> 200°F NO FLASH EXACT 60°	CLOSED CUP OPEN CUP		

C. CHEMICAL COMPOSITION (TOTALS MUST ADD TO 100%)

C. CHEMICAL COMPOSITION (TOTALS MUST ADD TO 100%)		D. METALS		EPA EXTRACTION PROCEDURE (mg/L)	
LAKOCALIC SALTS	6	ARSENIC (As)	≤ 0.5 mg/L	SELENIUM (Se)	≤ 0.1 mg/L
MASTICS	67	BARIUM (Ba)	≤ 10 mg/L	SILVER (Ag)	≤ 1.5 mg/L
VOLATILE ORGANICS	13	CADMIUM (Cd)	≤ 0.1 mg/L	COPPER (Cu)	≤ 0.3 mg/L
WATER	14	CHROMIUM (Cr)	≤ 0.1 mg/L	NICKEL (Ni)	≤ 0.3 mg/L
		MERCURY (Hg)	≤ 0.02 mg/L	ZINC (Zn)	≤ 1.5 mg/L
		LEAD (Pb)	≤ 0.5 mg/L	THALLIUM (Tl)	NA
		CHROMIUM-HEX (Cr + 6)	NA		

F. SHIPPING INFORMATION

DOT HAZARDOUS MATERIAL?

 YES NO

PROPER SHIPPING NAME:

HAZARDOUS WASTE SOLIDS

HAZARD CLASS:

CRM-E ID NO: 149189 RQ: 1

METHOD OF SHIPMENT:

 BULK LIQUID BULK SOLID OR DRUM/TYPE/SIZE: 55gal/35gal

ANTICIPATED VOLUME:

GALS: 20.6 CUBIC YARDS

OTHER: 57 cu - 55 gal

PER: ONE TIME WEEK MONTH QUARTER YEAR

H. SPECIAL HANDLING INFORMATION

RE: REGISTRATION INFORMATION
PEL ASSOCIATES, INC.; 11499 CHESTER RD., CINCINNATI, OH 45241, ATTN: PAUL REFAIYER 513/752-4541

ADDITIONAL PAGE(S) ATTACHED

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED

AUTHORIZED SIGNATURE

TITLE

DATE

Brian C. Lee OSC 2-7-26



Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET



WASTE PROFILE SHEET CODE

COL
SDA

F61865

A GENERAL INFORMATION

GENERATOR NAME

U.S. EPP

TRANSPORTER

TO BE DETERMINED

FACILITY ADDRESS

U.S. SCRAP

TRANSPORTER PHONE

16300 S COTTAGE GROVE
CHICAGO IL

GENERATOR EPA ID

ILD1366777-84

TECHNICAL CONTACT

KIRKWOOD

TITLE

ON-SITE COORDINATOR

PHONE: 312/676-6446

NAME OF WASTE

CRUSHER LIMBS

PROCESS GENERATING WASTE

WASTE SITE CLEANUP

B PHYSICAL CHARACTERISTICS OF WASTE

COLOR	ODOR	NONE	MILD	PHYSICAL STATE @ 70°F	LAYERS	FREE LIQUIDS	VOLUME
IF		N/A	N/A	SOLID	SEMI-SOLID	NO	NO
				Liquid	Powder	YES	NO

PH < 2	<input type="checkbox"/> 1-10	X N/A	SPECIFIC GRAVITY < 3	<input type="checkbox"/> 13-14	FLASH POINT < 70°F	<input type="checkbox"/> > 200°F	CLOSED CUP
= 2.4	<input type="checkbox"/> 10-12.5		= 3-10	<input type="checkbox"/> 15-17	= 70°F - 100°F	<input type="checkbox"/> NO FLASH	OPEN CUP
= 4.1-6.9	<input type="checkbox"/> > 12.5		= 11-12	> 17	= 101°F - 139°F	<input type="checkbox"/> EXACT	IF
			EXACT	N/A	= 140°F - 200°F		

C CHEMICAL COMPOSITION (TOTAL MUST ADD UP TO 100%)

C CHEMICAL COMPOSITION (TOTAL MUST ADD UP TO 100%)		D METALS (TOTAL PPM)		E OTHER COMPONENTS (TOTAL PPM)		F EPA EXTRACTION PROCEDURE (if any)	
ARSENIC (As)	N/A	ARSENIC (As)	N/A	CYANIDES	N/A	SELENIUM (Se)	N/A
BARIUM (Ba)	N/A	BARIUM (Ba)	N/A	SULFIDES	N/A	SILVER (Ag)	N/A
CADMIUM (Cd)	N/A	CADMIUM (Cd)	N/A			COPPER (Cu)	N/A
CHROMIUM (Cr)	N/A	CHROMIUM (Cr)	N/A			NICKEL (Ni)	N/A
MERCURY (Hg)	N/A	MERCURY (Hg)	N/A			ZINC (Zn)	N/A
LEAD (Pb)	N/A	LEAD (Pb)	N/A			THALLIUM (Tl)	N/A
CHROMIUM-HEX (Cr + 6)	N/A						

F SHIPPING INFORMATION

DOT HAZARDOUS MATERIAL? YES NO

PROPER SHIPPING NAME HAZARDOUS WASTE SUB-CLASS

HAZARD CLASS DKM-5 ID NO N/A PROL

METHOD OF SHIPMENT BULK LIQUID BULK SOLID

DRUM (TYPE/SIZE)

ANTICIPATED VOLUME GALS 20 CUBIC YARDS

OTHER

PER ONE TIME WEEK MONTH QUARTER YEAR

G HAZARDOUS CHARACTERISTICS

REACTIVITY NONE PYROPHORIC SHOCK SENSITIVE EXPLOSIVE WATER REACTIVE OTHER

OTHER HAZARDOUS CHARACTERISTICS

 NONE RADIOACTIVE ETIOLOGICAL PESTICIDE MANUFACTURING WASTE OTHERUSEPA HAZARDOUS WASTE? YES NO

USEPA HAZARDOUS CODE(S)

STATE HAZARDOUS WASTE? YES NO

STATE CODE(S)

H SPECIAL HANDLING INFORMATION

PET ASSOCIATES, INC.; 11499 MESTER RD; CINCINNATI, OH 45246
TEL: PHIL KEEFLICKER 513/752-4541

I ADDITIONAL PAGES ATTACHED

I HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED

AUTHORIZED SIGNATURE

TITLE

DATE

Brenda C. ODC

27-86



Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET

WASTE PROFILE SHEET 1008

COL
SDM

E-61370

A GENERAL INFORMATION

GENERATOR NAME: U.S. 1502
 FACILITY ADDRESS: U.S. 50K25
 1630 S. COFFEE DRIVE
 JOLIET, IL
 TECHNICAL CONTACT: DR. RUDY HU
 NAME OF WASTE: FLAMMABLE SOLID
 PROCESS GENERATING WASTE: WASTE SITE CLEANUP

TRANSPORTER: E. DE JEROME, INC.
 TRANSPORTER PHONE: 312/360-1273
 GENERATOR USEPA ID: IL113001273
 GENERATOR STATE ID: IL
 TITLE: On-Site Coordinator
 PHONE: 312/186-7454

B PHYSICAL CHARACTERISTICS OF WASTE

COLOR	ODOR	NONE	MILD	PHYSICAL STATE	SOLID	SEMISOLID	LAYERS	FREE LIQUIDS
BLACK	STRONG			SOLID	<input checked="" type="checkbox"/>	SEMI-SOLID	MULTILAYERED	
	DESCRIBED	NA		Liquid		Powder	BILAYERED	
							SINGLE PHASED	
CM <2	<7-10		N/A	SPECIFIC GRAVITY	< 3	3-14	FLASH POINT	< 70°F
=24	=10-125				3-10	=15-17		> 200°F
=41-69	>125				=11-12	>17		X CLOSED CUP
=	< ACT	?	?					= 10°F - 139°F
								= NO FLASH
								= OPEN CUP
								= EXACT 55°-
								= 140°F - 200°F

C CHEMICAL COMPOSITION (TOTAL MUST ADD TO 100%)

100%	50%
10%	35%
10%	35%
10%	9%
10%	10%

CONTAMINANTS	TOTAL PPM	EPA EXTRACTION PROCEDURE
ARSENIC (As)	5.0 ppm	20 min
BARIUM (Ba)	5.0 ppm	5 min
CADMIUM (Cd)	0.1 ppm	10 min
CHROMIUM (Cr)	50.0 ppm	10 min
MERCURY (Hg)	50.0 ppm	10 min
LEAD (Pb)	0.5 ppm	10 min
CHROMIUM-HEX (Cr-6)	NA	

OTHER COMPONENTS	TOTAL PPM	PCBS
CYANIDES	5 ppm	NA
SULFIDES	5 ppm	21.0 ppm
PHENOLICS	5 ppm	

D SHIPPING INFORMATION

DOT HAZARDOUS MATERIAL	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
PROPER SHIPPING NAME	FLAMMABLE SOLID N.O.S.	
HAZARD CLASS	FLAMMABLE SOLID TD. NO	UN1325
METHOD OF SHIPMENT	<input type="checkbox"/> BULK LIQUID	<input type="checkbox"/> BULK SOLID
	<input checked="" type="checkbox"/> DRUM (TYPE/SIZE)	55 GAL
ANTICIPATED VOLUME	GALS	CUBIC YARDS
	1 LTR/M	OTHER
PER	<input checked="" type="checkbox"/> ONE TIME	<input type="checkbox"/> WEEK
	<input type="checkbox"/> QUARTER	<input type="checkbox"/> YEAR

HAZARDOUS CHARACTERISTICS	REACTIVITY	PYROPHORIC	SHOCK SENSITIVE
	<input checked="" type="checkbox"/> NONE	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> EXPLOSIVE	<input type="checkbox"/> WATER REACTIVE	<input type="checkbox"/> OTHER
OTHER HAZARDOUS CHARACTERISTICS			
	<input type="checkbox"/> NONE	<input type="checkbox"/> RADIOACTIVE	<input type="checkbox"/> BIOLOGICAL
	<input type="checkbox"/> PESTICIDE MANUFACTURING WASTE	<input type="checkbox"/> OTHER	<input checked="" type="checkbox"/> INERT
USEPA HAZARDOUS WASTE?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
USEPA HAZARDOUS CODE(S)	0001		
STATE HAZARDOUS WASTE?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
STATE CODE(S)			

H SPECIAL HANDLING INFORMATION

REASON FOR THIS INFORMATION: DUE TO THE NATURE OF THE WASTE

RECIPIENT: PET ASSOCIATES 11499 CHESTER RD. CINCINNATI, OH 45246

ATTN: Paul Reinhiser 513/232-4341

ADDITIONAL PAGES ATTACHED

I hereby certify that the information submitted in this form and attached documents is complete and accurate and that all known or suspected hazards have been disclosed.

AUTHORIZED SIGNATURE

DATE

Brian Cola OSC 2-7-86



Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET

A - GENERAL INFORMATION	
GENERATOR NAME	<u>TSI</u>
TRANSPORTER	<u>TRI-TECH SERVICES</u>
FACTORY ADDRESS	<u>333 E 200 S</u>
TRANSPORTER PHONE	<u>(800) 541-1355</u>
GENERATOR USEPA ID	<u>E01360011-12</u>
GENERATOR STATE ID	<u>IL</u>
TECHNICAL CONTACT	<u>CHRIS D. LEE</u>
TITLE	<u>3. HAZWIE COMPUTER</u>
PHONE	<u>(312) 524-1110</u>
NAME OF SITE	<u>TSI</u>
PROCESS GENERATING WASTE	<u>WASTE SITE CLEARUP</u>

3-15-04-1045-07837-03-25-NASTE

NAME		TEMP.	TIME	ANALYSIS STATE	TESTS	FIRE TEST				
<i>BRK-10</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> SOLID	<input checked="" type="checkbox"/> SEMI-SOLID	<input checked="" type="checkbox"/> BILAYERED	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> NO		
DESCR. & L.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> SOIL	<input checked="" type="checkbox"/> ST. CLAY	<input checked="" type="checkbox"/> CLAY PHASED	VOLUME			
SM	<2	<input checked="" type="checkbox"/>	N/A	SPECIFIC GRAVITY	< 3	13-14	FLASH PT.	< 70°F	<input checked="" type="checkbox"/> > 200°F	<input checked="" type="checkbox"/> CLOSED CUP
	24	<input checked="" type="checkbox"/>	100-100		4-5	15-17		70°F - 100°F	<input checked="" type="checkbox"/> NO FLASH	<input type="checkbox"/> OPEN CUP
	41-69	<input checked="" type="checkbox"/>	> 125		11-12	> 17		101°F - 139°F	<input checked="" type="checkbox"/> EXACT	
		<input checked="" type="checkbox"/>	<i>EXACT</i>	<i>EXACT</i>	<i>EXACT</i>	<i>EXACT</i>		140°F - 200°F		

CHEMICAL COMPOSITION

3 HE-145

NAME	TEST	TEST
ARSENIC	<u>L 3 5 min</u>	<u>L 3 5 min</u>
SACRAMENTO	<u>L 3 5 min</u>	<u>COPPER CO</u>
CHROMIUM CH	<u>L 3 5 min</u>	<u>NICKEL NH</u>
MERCURY HgI	<u>L 3 5 min</u>	<u>ZINC Zn</u>
LEAD Pb	<u>L 3 5 min</u>	<u>MALLUM</u>
PHOSPHORIC ACID	<u>L 1/2</u>	

F - G INFORMATION

100% HAZARDOUS MATERIAL	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
PROPER SHIPPING NAME <u>HAZARDOUS LIQUID SOLVENT</u>		
HAZARD CLASS <u>1711-1</u>	<input type="checkbox"/> ID NO <u>A171187</u>	<input type="checkbox"/> PROL
METHOD OF SHIPMENT <input type="checkbox"/> BULK LIQUID	<input checked="" type="checkbox"/> BULK SOLID	
<input type="checkbox"/> DRUM/TYPE/SIZE: _____		
ANTICIPATED VOLUME <u>1</u>	GALS <u>80</u>	LITERIC YARD
OTHER <u> </u>		
PER <input checked="" type="checkbox"/> ONE TIME	<input type="checkbox"/> WEEK	<input type="checkbox"/> MONTH
<input type="checkbox"/> QUARTER		
<input type="checkbox"/> YEAR		

G HAZARDOUS CHARACTERISTICS

<input type="checkbox"/> REACTIVITY	<input type="checkbox"/> NONE	<input type="checkbox"/> PYROPHORIC	<input type="checkbox"/> SHOCK SENSITIVE
<input type="checkbox"/> EXPLOSIVE	<input type="checkbox"/> WATER REACTIVE	KINETIC OTHER	
OTHER HAZARDOUS CHARACTERISTICS			
<input checked="" type="checkbox"/> NONE	<input type="checkbox"/> RADIACTIVE	<input type="checkbox"/> ETIOLOGICAL	
<input type="checkbox"/> PESTICIDE MANUFACTURING WASTE	<input type="checkbox"/> OTHER		
USEPA HAZARDOUS WASTE?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
USEPA HAZARDOUS CODE IS:	123		
STATE HAZARDOUS WASTE?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
STATE CODE IS:	123		

3. SPECIAL HANDLING INFORMATION

NET ASSOCIATES INC 11499 HUNTER DR., ALEXANDRIA, VA 22314
ETTE, INC - 1511 G ST NW - 20004-3311

Brent Lake 188

27-26



Suite 1501, Northbrook Office Court
666 West Dundee Road, Northbrook, IL 60062 • (312) 498-9094

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-6669

CWM - SCA Chemical Services, Inc.
Profile Evaluation
1550 Balmer Road
Model City, New York 14107

January 30, 1986

TAT-05-F-00819

Gentlemen:

Please find enclosed completed waste profile sheets for waste submitted for disposal consideration at SCA - Model City. As discussed with Mr. Tim Welch, representative waste samples have not been sent to CWM because the enclosed chemical waste analyses were performed by a CWM-approved laboratory.

If you have any questions, please contact me at
312/498-9090.

Very truly yours,

ROY F. WESTON, INC.

A handwritten signature in black ink that appears to read "Tom Gainer".

Tom Gainer
Environmental Engineer

A handwritten signature in black ink that appears to read "Scott D. Springer".

Scott D. Springer
Technical Assistance Team
Leader, Region V

TG:ap

Enclosure

Roy F. Weston, Inc.

SPILL PREVENTION & EMERGENCY RESPONSE DIVISION

In Association with Jacobs Engineering Group Inc., Tetra Tech, Inc., and ICF Incorporated



Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET

WASTE PROFILE SHEET CODE

COL
SOR

F61865

A GENERAL INFORMATION

GENERATOR NAME L.S. EPIC TRANSPORTER TO BE DETERMINED
 FACILITY ADDRESS L.S. SCRAP TRANSPORTER PHONE _____
1050 S. COTTAGE GROVE GENERATOR USEPA ID 2073677734
CHICAGO IL GENERATOR STATE/CITY IL
 TECHNICAL CONTACT BRIAN INU TITLE ON SITE COORDINATOR PHONE 361866-6444
 NAME OF WASTE BRUSHED DRUMS
 PROCESS GENERATING WASTE WASTE SITE CLEANUP

B PHYSICAL CHARACTERISTICS OF WASTE

COLOR <u>N/A</u>	ODOR <input type="checkbox"/> NONE <input checked="" type="checkbox"/> MILD <input type="checkbox"/> STRONG	PHYSICAL STATE <input type="checkbox"/> SOLID <input checked="" type="checkbox"/> SEMI-SOLID <input type="checkbox"/> LIQUID <input type="checkbox"/> POWDER	LAYERS <input type="checkbox"/> MULTILAYERED <input type="checkbox"/> BI-LAYERED <input checked="" type="checkbox"/> SINGLE PHASED	FREE LIQUIDS <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
pH <input type="checkbox"/> < 2 <input type="checkbox"/> 7.1-10 <input checked="" type="checkbox"/> N/A	SPECIFIC GRAVITY <input type="checkbox"/> < 3 <input type="checkbox"/> 3-14 <input type="checkbox"/> 3-10 <input type="checkbox"/> 15-17 <input type="checkbox"/> 1.1-12 <input type="checkbox"/> > 17 <input type="checkbox"/> EXACT <u>N/A</u>	FLASH POINT <input type="checkbox"/> < 70°F <input type="checkbox"/> > 200°F <input type="checkbox"/> 70°F - 100°F <input type="checkbox"/> NO FLASH <input type="checkbox"/> 101°F - 139°F <input type="checkbox"/> EXACT <u>N/A</u> <input type="checkbox"/> 140°F - 200°F	<input type="checkbox"/> CLOSED CUP <input type="checkbox"/> OPEN CUP	
<input type="checkbox"/> 24	<input type="checkbox"/> > 12.5			
<input type="checkbox"/> 4.1-6.9	<input type="checkbox"/> > 12.5			
<input type="checkbox"/> 7	<input type="checkbox"/> EXACT			

C CHEMICAL COMPOSITION (TOTAL MUST ADD TO 100%)

D METALS	TOTAL (PPM)	EPA EXTRACTION PROCEDURE (mg/L)
ARSENIC (As)	<u>N/A</u>	SELENIUM (Se) <u>N/A</u>
SARIUM (Ba)	<u>N/A</u>	SILVER (Ag) <u>N/A</u>
CADMIUM (Cd)	<u>N/A</u>	COPPER (Cu) <u>N/A</u>
CHROMIUM (Cr)	<u>N/A</u>	NICKEL (Ni) <u>N/A</u>
MERCURY (Hg)	<u>N/A</u>	ZINC (Zn) <u>N/A</u>
LEAD (Pb)	<u>N/A</u>	THALLIUM (Tl) <u>N/A</u>
CHROMIUM-HEX (Cr + 6)	<u>N/A</u>	

E OTHER COMPONENTS (TOTAL (PPM))

CYANIDES	<u>N/A</u>	PCB'S	<u>N/A</u>
SULFIDES	<u>N/A</u>	PHENOLICS	<u>N/A</u>

F SHIPPING INFORMATION

DOT HAZARDOUS MATERIAL? YES NOPROPER SHIPPING NAME HAZARDOUS WASTE SOLIDSHAZARD CLASS DRM-5 ID NO N/A 9182 I.R.O.METHOD OF SHIPMENT BULK LIQUID BULK SOLID
 DRUM (TYPE/SIZE)ANTICIPATED VOLUME _____ GALS 20 CUBIC YARDSOTHER
PER ONE TIME WEEK MONTH
 QUARTER YEAR

G HAZARDOUS CHARACTERISTICS

REACTIVITY <input checked="" type="checkbox"/> NONE	<input type="checkbox"/> PYROPHORIC	<input type="checkbox"/> SHOCK SENSITIVE
<input type="checkbox"/> EXPLOSIVE	<input type="checkbox"/> WATER REACTIVE	<input type="checkbox"/> OTHER

OTHER HAZARDOUS CHARACTERISTICS:

<input checked="" type="checkbox"/> NONE	<input type="checkbox"/> RADIOACTIVE	<input type="checkbox"/> ETIOLOGICAL
<input type="checkbox"/> PESTICIDE MANUFACTURING WASTE	<input type="checkbox"/> OTHER	

USEPA HAZARDOUS WASTE? YES NO

USEPA HAZARDOUS CODE(S) _____

STATE HAZARDOUS WASTE? YES NO

STATE CODE(S) _____

H SPECIAL HANDLING INFORMATION (CONTAIN REVERSE LOGISTICS & RECYCLING)

PET ASSOCIATES, INC.; 11499 145TER RD; CINCINNATI, OH 45241
 TEL: 513/782-4541 ADDITIONAL PAGES ATTACHED

HEREBY CERTIFY THAT ALL INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS IS COMPLETE AND ACCURATE AND THAT ALL KNOWN OR SUSPECTED HAZARDS HAVE BEEN DISCLOSED
 AUTHORIZED SIGNATURE _____ TITLE _____ DATE _____

Brian Inu

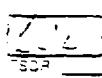
OK

27-86



Waste Management, Inc.

GENERATOR'S WASTE MATERIAL PROFILE SHEET



F-31-331

A. GENERAL INFORMATION

GENERATOR NAME

< 50%

TRANSPORTER

T-12-1771-A-51

FACILITY ADDRESS

S.SCRAP

TRANSPORTER PHONE

2300 S. JUSTICE DRIVE

GENERATOR USEPA ID

L-11760 IL

GENERATOR STATE ID

TECHNICAL CONTACT CRIPPLIN LLC

TITLE: DR. SCRAP & FORMULATING PHONE: 312/266-6841

NAME OF WASTE

WASTE IS "LEAN" P.

PROCESS GENERATING WASTE

B. PHYSICAL CHARACTERISTICS OF WASTE

DESCRIPTION	FLUID	STRENGTH	MATERIAL	PHYSICAL STATE	TYPE	LAYERS		FREE LIQUIDS	VOLUME
						<input checked="" type="checkbox"/> SOLID	<input type="checkbox"/> SEMI-SOLID		
CRIPPLIN LLC				Liquid	Powder	<input type="checkbox"/> BI-LAYERED	<input type="checkbox"/> YES		
						<input checked="" type="checkbox"/> SINGLE PHASED			
CM 42	<input checked="" type="checkbox"/> 71-10	<input type="checkbox"/> N/A	SPECIFIC GRAVITY	< 3	13-14	FLASH POINT	< 70°F	200°F	CLOSED CUP
CM 24	<input type="checkbox"/> 101-126			3-10	15-17		70°F - 130°F	NO FLASH	OPEN CUP
CM 41-69	<input type="checkbox"/> > 125			11-12	> 17		101°F - 139°F	EXACT	
	<input checked="" type="checkbox"/> EXACT	72					140°F - 250°F		

C. CHEMICAL COMPOSITION (TOTAL MUST ADD TO 100%)

C. CHEMICAL COMPOSITION (TOTAL MUST ADD TO 100%)		D. METALS	EPA EXTRACTION PROCEDURE
ASBESTOS	10%	ARSENIC (As)	100 mg/L
LEAD	10%	BARIUM (Ba)	100 mg/L
CHROMIUM (Cr)	10%	CADMIUM (Cd)	100 mg/L
MERCURY (Hg)	10%	CHROMIUM (Cr)	100 mg/L
LEAD (Pb)	10%	MERCURY (Hg)	100 mg/L
CHROMIUM-HEX CH-AL	10%	LEAD (Pb)	100 mg/L

F. SHIPPING INFORMATION
DOT HAZARDOUS MATERIALS YES NO

PROPER SHIPPING NAME: RECYCLED BRICKS

HAZARD CLASS: CR-1 ID NO: UN2315 R01

METHOD OF SHIPMENT: BULK LIQUID

DRUM TYPE/SIZE: 55 GAL

ANTICIPATED VOLUME: 1 GALLON GALS

OTHER: CUBIC YARDS

PER: ONE TIME WEEK MONTH QUARTER YEAR
G. HAZARDOUS CHARACTERISTICS
REACTIVITY NONE EXPLOSIVE PYROPHORIC WATER REACTIVE SHOCK SENSITIVE OTHER

OTHER HAZARDOUS CHARACTERISTICS

 NONE PESTICIDE MANUFACTURING WASTE RADIOACTIVE OTHER ETIOLOGICALUSEPA HAZARDOUS WASTE? YES NO

USEPA HAZARDOUS CODE(S) _____

STATE HAZARDOUS WASTE? YES NO

STATE CODE(S) _____

H. SPECIAL HANDLING INFORMATION
REI ASSOCIATES INC.; 11499 CHESTER RD.; CINCINNATI, OH 45246
513/732-4941

X ADDITIONAL PAGES ATTACHED

I HEREBY CERTIFY THAT THE INFORMATION CONTAINED IN THIS SHEET AND ATTACHED DOCUMENTS IS COMPLETE AND UP-TO-DATE IN THAT IT IS AN ACCURATE STATEMENT OF THE SUSPECTED HAZARDS HAVE BEEN DISCLOSED

AUTHORIZED SIGNATURE

TITLE

DATE

Frank C. Wilson III

2-7-86

O.H. Materials Co.
P.O. Box 551
Findlay, Oh 45840
419-423-3526

CHAIN-OF-CUSTODY RECORD

No. 8332

PROJECT LOCATION		NAME OF CLIENT		PROJECT TELEPHONE NO.		PROJECT NUMBER	
U.S. SCRAP, INC., IL		USEPA/PEI		312/926-8232		3079-P1B	
ITEM NUMBER	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINERS	DESCRIPTION	TRANSFER NUMBER & CHECK			
				1	2	3	4
1	CS-61 64285372	One (1) 12 oz GLASS JAR	Soil sample, U.S. Scrap material placed in S17 (UTV) lifts on 12/6/85.				
Person Responsible for sample: John Renkes Affiliation: OHA Date: 12/6 Time: 1305				TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	ACCEPTED BY
Purpose of analysis (use back of front sheet if necessary) Basic compatibility Illinois Green Sheet Co-chip decision				1	1	John Renkes	✓
				2			
				3			
				4			
				5			
				6			